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# Factors Contributing to Victim Employment, Victim Income Status, and Intimate Partner Violence in Jamaica

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# FACTORS CONTRIBUTING TO VICTIM EMPLOYMENT, VICTIM INCOME STATUS, AND INTIMATE PARTNER VIOLENCE IN JAMAICA

by

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# ABSTRACT

Using 166 IPV police reports in Jamaica, this mixed-methods study (a) explored the utility of routine activities theory and control balance theory for explaining the relationship between victim employment and IPV; (b) explored risk factors for IPV; and (c) examined the relationships between victim employment and victim income status with IPV murder and IPV severity in the Jamaica. Content analysis of the narratives of the police reports supported both theories suggesting an integration of the two theories may be most fitting. Estrangement and infidelity emerged as bold themes. Infidelity was identified as an additional risk factor in the Jamaican context. Quantitative analysis revealed that employed victims and victims with income were significantly older than their counterparts. Being unemployed and having no income were associated with being female. Male victims were 4.98 times more likely to be employed and 7.30 times more likely to have income than female victims. Older victims were 2.36 times more likely to have income than younger victims. Victim employment and victim income status failed to predict the odds of IPV murder or to impact the level of IPV severity. However, the offender's weapon emerged as a salient predictor. When an offender used a sharp weapon or a gun, the odds of the victim being murdered was 4.77 greater and .71 greater respectively than if no such weapon was used. Using a sharp weapon magnified the IPV severity (B = 1.20) while using a gun reduced the IPV severity (B = .78). This study is useful for informing public policies addressing IPV in Jamaica.

Dedicated to my mother

*Deloris A. Forbes-Chen*

Survivor of Intimate Partner Violence

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# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| AWOJA | Association for Women's Organisations in Jamaica |
| BWA | Bureau of Women's Affairs |
| CEDAW | Convention on the Elimination of All Forms of Discrimination against Women |
| CDC | Centers for Disease Control and Prevention |
| CIA | Central Intelligence Agency |
| DV | domestic violence |
| GNI | gross national income |
| IPV | Intimate partner violence |
| JCF | Jamaica Constabulary Force |
| JDF | Jamaica Defence Force |
| JNCVS | Jamaica National Crime Victimization Survey |
| LAC | Latin America and the Caribbean |
| LAPOP | Latin American Public Opinion Project |
| NGO | non-governmental organization |
| SPSS | Statistical Package for the Social Sciences |

| | |
|---|---|
| UNICEF | United Nations Children's Fund |
| UNDP | United Nations Development Programme |
| UNODC | United Nations Office on Drugs and Crime |
| UNFPA | United Nations Population Fund |
| UN-WOMEN | United Nations Entity for Equity and Empowerment of Women |
| WHO | World Health Organization |

# CHAPTER ONE: INTRODUCTION

The majority of research on the risk factors for intimate partner violence (IPV) has come out of the developed nations in North America, Europe, and Australia. From such research, an identified risk factor for IPV is victim unemployment; and conversely, victim employment is identified as a protective factor. However, IPV is a pandemic problem. The dynamics of IPV in North America, Europe, and Australia may not be the same for developing nations--- such as many of the Caribbean nations where the economic structure may be vastly different. The World Bank (2015) defined a developing nation as one that has low-to-middle gross national income (GNI) per capita operationalized as a GNI of less than $12,746US per person annually. In 2016, Jamaica's GNI was $4,630US (World Bank, 2018). There is a dire need for cross-cultural research on IPV (Adinkrah, 2008; Leonard, 2002) in developing nations. This study examined the impact of victim employment and victim income status on IPV in Jamaica, a developing nation in the Caribbean.

## Intimate Partner Violence Globally

The World Health Organization (WHO, 2012) defined IPV as "any behaviour within an intimate relationship that causes physical, psychological, or sexual harm to those in the relationship" … including "acts of physical violence…, sexual violence…, emotional (psychological) abuse…, and controlling behaviours…" (page 1). IPV is the most common form of violence against women globally (United Nations, 2015). The United Nations Population Fund, UNFPA, (2002) estimated that 80% of women globally will be violently victimized in their lifetime. According to WHO, the global physical violent victimization rates of women lie between 20% to 30% annually (Garcia-Moreno,

Jansen, Ellsberg, Heise, & Watts, 2005). Globally, two-thirds of the victims of IPV homicide are women (United Nations, 2015).

The IPV rates are highest in developing countries. WHO estimated that 35% of female homicides in Europe were due to IPV, whereas 70% of the female homicides worldwide were due to IPV (Garcia-Moreno et al., 2005). The World Bank (2007) estimated that the IPV rate in Latin America and the Caribbean (LAC) is twice the global average -- an alarming 40% to 60% annually. But IPV and other gendered violence in the LAC are understudied (Sutton & Alvarez, 2016).

In recent years, a growing number of studies emerging from Latin American nations confirmed WHO's estimated prevalence rates and explored other dynamics of IPV in those nations. Illustratively, recent research has suggested that 49% of the women in Peru reported severe physical IPV in their lifetime (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006); 38% of the women in Columbia reported recent physical or sexual assault (Pallitto & O'Campo, 2004); and 52% of the women in Bolivia reported being victims of physical IPV (Hindin, Kishor, & Ansara, 2008).

For centuries, male-on-female IPV have been a prominent and accepted aspect of intimate relationships in the Commonwealth Caribbean (Allen, 2009; Clarke & Sealy-Burke, 2005; Morgan & Yousef, 2006; Spooner, 2009). Among the Caribbean nations, Jamaica's IPV rate may be one of the highest (Amnesty International, 2004, 2015a, 2015b; Garcia-Moreno et al., 2005; United Nations Human Rights Council, 2010). By contrast to the blossoming of research on IPV in Latin America, research on IPV from the Commonwealth Caribbean nations, including Jamaica, is sorely lacking.

## IPV in Jamaica

***Background.***

Jamaica is the third largest island in the Caribbean Sea with a population of 2,990, 561 (Central Intelligence Agency, CIA, 2017) of which just over a half are women. The island is approximately 10,991 square kilometers. The island is geographically divided into 14 parishes: Clarendon, Kingston, Hanover, Manchester, Portland, Saint Andrew, Saint Ann, Saint Catherine, Saint Elizabeth, Saint James, Saint Mary, Saint Thomas, Trelawny, and Westmoreland. There are two major cities: Kingston, the capital, and Montego Bay. As one of the 12 sovereign Commonwealth nations in the Caribbean, the official language is English. But Jamaican patois (dialect) is widely spoken in informal settings and is sometimes utilized in formal settings and formal reports, such as police reports. As illustrated in Figure 1, the World Bank's worldwide governance indicators, Jamaica is starkly different from the United States and high-income nations but is more aligned with the rest of the LAC.

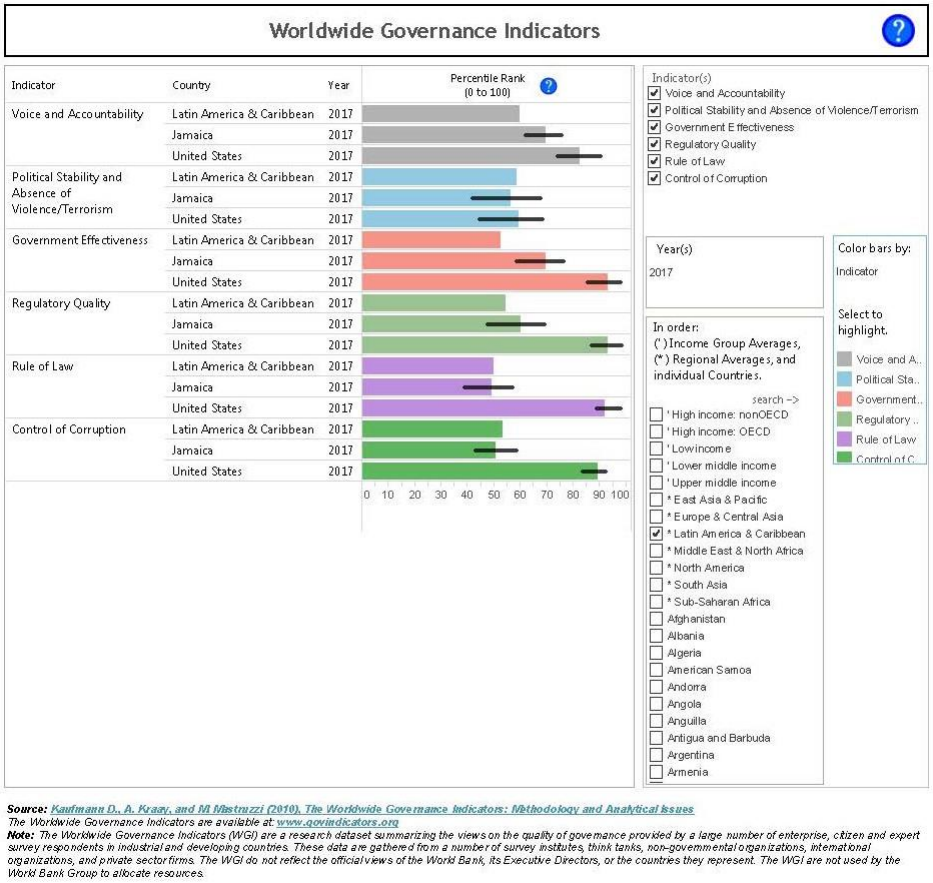


Figure 1: The 2017 Worldwide Governance Indicators for Jamaica, Unites States, and Latin America and the Caribbean. (World Bank, 2019)

Jamaica gained independence from England on August 5th, 1962. As a part of the Commonwealth, Jamaica has a constitutional parliamentary democratic government. Jamaica has a unitary system of government, nationwide law, and one policing agency. The legal system and laws are derived from the English model. To illustrate, the English common law of 'rule of thumb' was accepted within the Commonwealth Caribbean. This law permitted a husband to beat his wife with an object that was no thicker than his thumb as punishment for misconduct. The Commonwealth Caribbean's mutual history of

colonization and slavery is linked to current violence and male hegemony (Danns & Persad, 1989; Haniff, 1998; Global Scripture Impact, 2012).

Violence is endemic in Jamaica. For decades, Jamaica has consistently ranked in the top three nations for homicides in the Western Hemisphere (United Nations Office of Drugs and Crime, UNODC, 2002; 2007; 2013; 2014). On April 14, 2019, consistent with historical advisories, the United States Department of State travel advisory for Jamaica read "violent crimes, such as home invasions, armed robberies, sexual assaults, and homicides are common. Sexual assaults occur frequently, including at all-inclusive resorts. Local police lack the resources to respond effectively to serious criminal incidents" (United States Department of State, 2019; para 2). Societies with high levels of social violence typically also have high levels of DV (Erchak & Rosenfeld, 1994).

Fostered by endemic violence, cultural support, and inaction by public authorities, IPV has pungently flourished in Jamaica. In July 2015, the United Kingdom Home Office (2015) classified Jamaican women who are victims of IPV as meeting the criteria of the 1951 United Nations Refugee Convention and thus being eligible for asylum. The report noted that IPV in Jamaica was a "serious and widespread problem" (p. 5).

For decades, the Jamaican media has reported high rates of IPV on the island. Nearly ten years ago, on Sunday, November 15, 2007, the Jamaica Observer's somber front page headline screamed "Domestic violence on the rise" (page 1) and went on to note that there were 61 IPV murders in 2006 reflecting a 20% increase over the prior year. A few years later, on Sunday, June 8, 2014, the Jamaica Gleaner's headline cried out "domestic violence at crisis level: 24 lovers kill spouses in five months" (page 1). The article mentioned that a substantial number of reported cases of brutal IPV assaults had

not resulted in death. On the last day of 2016, the Jamaica Observer's headline again highlighted the grave cases of IPV homicide in the island in that year, particularly the case of a triple-murder with suicide (Mundle, 2016). Most recently, on April 11, 2019, the Jamaica Gleaner (Wright, 2019) ran the headline "Killer hubby was serial abuser" on the front page as they reported on the IPV murder-suicide as a correctional officer shot and killed his wife and then himself in front of their 12-year-old daughter. The report went on to say that the couple had been married for 15 years throughout which the husband regularly beat his wife and had multiple extramarital affairs. Reports had been made to several police departments, and the family pleaded with her to leave. She had finally left and moved into her father's home when she was killed.

***Prevalence of IPV.***

By comparison to the decades of print media coverage, empirical research on IPV in Jamaica is limited. The Pan American Health Organization purported IPV is the most prevalent form of violence in Jamaica (Bott, Guedes, Godwin, & Mendoza, 2012) and the Organization of American States reported that IPV is one of the most common types of violence in Jamaica (Inter-American Commission on Human Rights, 2012). The prevalence of IPV in Jamaica is difficult to ascertain. In a recent development, the Statistical Institute of Jamaica, the Inter-American Development Bank, and the United Nations Entity for Gender Equality and the Empowerment of Women funded and completed the Women's Health Survey 2016 Jamaica (Watson Williams, 2018) which utilized a national probability sample of 1,340 women between ages 15 and 64 in Jamaica. Based on the survey, Watson Williams estimated that about one in every four (25.2%) Jamaican women had experienced IPV in their lifetime and slightly more

(27.8%) had experienced IPV in the preceding 12 months. The author heralded this study as the first empirical attempt to determine the prevalence of IPV in Jamaica using a national probability sample.

Until 2013, the Jamaica Constabulary Force (JCF), the sole policing body in the island, did not notate IPV in police reports. Regardless, due to extensive underreporting, police reports cannot provide an accurate estimate of IPV prevalence. In 2014, Women Incorporated -- a non-governmental organization (NGO) in Jamaica that aids IPV victims-- estimated that there were at least five to six cases of unreported IPV assaults for each one that was reported. The basis of their estimate was not reported.

The few prior attempts to estimate prevalence of IPV in Jamaica have given highly varying results. Using data from February 1994, Haniff (1998) provided one of the earliest estimates of the prevalence of IPV in Jamaica. She examined over 3,000 police reports of violence in six of Jamaica's 14 geographical parishes for February 1994. She estimated that 409 of these reports entailed a female victim who was beaten by her male lover. Without revealing how she extrapolated her estimates, Haniff concluded that, in 1994, one in every six (16.7%) Jamaican women (ages 15 to 55) had been physically assaulted by her male lover. By contrast, LeFranc, Samms-Vaughn, Hambleton, Fox, and Brown (2008) reported that 85.1% of the Jamaican women they surveyed had experienced IPV. This exceeded the prevalence for women from the fellow Commonwealth Caribbean nations of Barbados and Trinidad and Tobago. But, Serbanescu, Ruiz, and Suchdev (2010) contradicted LeFranc et al.'s estimate when they reported that 35.1% of Jamaica women reported ever experiencing IPV in their lifetime

and only 17% had experienced IPV in the preceding year. These studies' findings on the prevalence of IPV in Jamaica have been summarized in Table 1.

Table 1: Studies on the Prevalence of IPV in Jamaica

| Year | Author | Prevalence Estimate | Sample |
|---|---|---|---|
| 2018 | Watson Williams | 25.2% over lifetime | Surveyed 1,340 randomly selected Jamaican women (ages 15 to 64) |
| 2018 | Watson Williams | 27.8% in the last 12 months | Surveyed 1,340 randomly selected Jamaican women (ages 15 to 64) |
| 2010 | Serbanescu, Ruiz, & Suchdev | 35.1% over lifetime | Surveyed Jamaica women who reported experiencing IPV. |
| 2010 | Serbanescu, Ruiz, & Suchdev | 17.0% in the last 12 months | Surveyed Jamaica women who reported experiencing IPV. |
| 2008 | LeFranc, Samms-Vaughn, Hambleton, Fox, & Brown | 85.1% | Surveyed Jamaica women who reported experiencing IPV. |
| 2006 | United Nations Children's Fund | 50.0% | Surveyed Jamaican men about using IPV with their partners. |
| 2006 | Royes, Samiel, Tate, & Fox | 100.0% | Surveyed Jamaican men with middle and upper-level income about using IPV with their partners. |
| 2006 | Royes, Samiel, Tate, & Fox | 80.0% | Surveyed Jamaican men with lower income about using IPV with their partners. |
| 1998 | Haniff | 16.7% | Examined police reports with female Jamaican victims (ages 15 to 55). |

Studies using non-victim samples suggest a greater prevalence of IPV in Jamaica than studies with victim samples. Soyibo and Lee (2000) reported that 45% of the Jamaican high school students in their sample had witnessed IPV in their homes. From their qualitative interviews with Jamaican men, Royes, Samiel, Tate, and Fox (2006) reported that 100% of the men with middle and upper-level income and 80% of the men with lower income reported using IPV with their partners. By contrast, only 50% of the Jamaican male respondents in a United Nations Children's Fund (2006) survey acknowledged hitting their partners. These studies suggest that Jamaican men are more

likely to disclose their use of IPV than Jamaican women are to admit being victims of IPV. However, more research is needed to address differences in disclosure between Jamaica offenders and Jamaican victims of IPV.

***Cultural Support of IPV.***

The cultural support for IPV in developing nations, such as Jamaica, may be dissimilar to the culture in the developed nations of North America, Europe, and Australia. Culture was first defined as "that complex whole which includes knowledge belief, art, morals, law, custom, and other capabilities and habits acquired by man as a member of society" (Tylor, 1871; p. i). Culture is a multi-level construct as it exists at the societal level as norms and at the individual level as beliefs. Thus, a culture can be thought of as values, norms, institutions, language, and artifacts that are shared by a society. Cultural values permeate the society and are passed on intergenerationally. WHO (2009) identified cultural support of IPV in nations as a risk factor for high rates of IPV. The Domestic Abuse Intervention Project (1982) identified four aspects of a culture that support IPV: (a) belief in inherent male power and superiority; (b) objectification of women; (c) permissibility of forced submission of female partners; and (d) permissibility of physical coercion. Within a culture, there can be overt support for IPV generally or a cavalier attitude of acceptance of IPV as just a part of life (Foshee, Linder, MacDougall, & Bangdiwala, 2001) or within certain circumstances (Schwartz, O'Leary, & Kendziora, 1997) to punish incendiary behavior (Barnes, 1997).

From the Latin American Public Opinion Project (LAPOP), 55% of Caribbean men and 42% of Caribbean women approved or understood a husband hitting his wife in particular circumstances (Sutton & Alvarez, 2016). Further, the LAPOP results showed

that 3.2% of the 1,165 Jamaican respondents 'would approve' and 21.2% of the respondents 'would not approve by understand' if a husband hit his wife for neglecting household chores. Further, 7% 'would approve' and 26% 'would not approve but understand' if a husband hit his wife for infidelity. Looking more closely at infidelity based at the gender of the respondents, 3% of female Jamaica respondents 'would approve' and 20% 'would not approve but understand' if a husband hit his wife for infidelity. More alarmingly, 8% of the male Jamaican respondents 'would approve' and 31% 'would not approve but understand' if a husband hit his wife for infidelity. Overall, 42% of the Jamaican respondents approved or understood a husband hitting his wife in particular circumstances (Bucheli & Rossi, 2016). The LAPOP results demonstrate that, within a Jamaican culture, there is at least tolerance and acceptance of IPV in certain circumstances. The cultural support is perhaps demonstrated best by the Jamaican adage "*If 'im nuh beat mi, 'im nuh love mi"* (translated: "If he doesn't beat me, he doesn't love me").

The LAPOP's results were confirmed by Women's Health Survey 2016 Jamaica (Watson Williams, 2018). Watson Williams (2018) reported that 77.4% of the Jamaican women agreed that the man is the God-intended head of the family; 32.2% agreed that a wife should obey her husband even if she disagrees with him; and 31.4% agreed that a wife is obligated to have sex with her husband whenever he wants it. Further, the largest proportion of women believed that IPV is a private matter. Watson Williams asserted in her introduction "as is the case globally, violence against women and girls in Jamaica is driven by the intersection of cultural, economic, social and political factors that

undermine women's position in Jamaican society and reinforce notions of female subordination and male domination" (Watson Williams, 2018; p. 14).

WHO (2010) confirmed that learning processes and lifetime experiences of IPV contribute to the acceptance of IPV as a cultural norm. Williams (2001) reported that IPV occurs frequently in homes in Jamaica, which allows for the intergenerational transmission of IPV as a cultural norm. The victims, offenders, and constables are all products of these intergenerational learning processes. Essentially, boys learn to be abusers, while girls learn to accept abuse. Children learn that IPV is a private matter outside the purview of the criminal justice system. Later, as adults, women may not define IPV as criminal acts. Cultural support of IPV results in weak community sanctions as family relationships are regarded as private (UNICEF, 2000).

Jeremiah, Gamache, and Hegamin-Younger (2013) concluded that the "Caribbean cultural paradigm" promoted Caribbean men's "proclivity toward violence against women" (p. 228) and thus thwarted efforts [including policing interventions] to reduce IPV. Illustratively, although Jamaica passed the Domestic Violence Act in the mid-1990s, JCF did not mandate the notating of domestic violence in police reports until 2013 and today this still is not consistently done. Cultural support of IPV may dictate how the police are expected to respond to IPV calls. IPV flourishes when the police are non-responsive to calls for help from IPV victims. The NGO Women Incorporated reported that victims frequently complain that constables do not treat IPV as a crime and fail to take reports (United States Department of State, 2012). Similarly, IPV victims in Jamaica have reported feeling that the constables blamed them for their victimization (Jamaica Gleaner, 2014). The United Kingdom Home Office (2015) noted that some constables

may not view IPV as a crime and that more training is needed for criminal justice professionals. Rather, the constables treat IPV as a private issue or the purview of the male spouse. The victims are thus "generally invisible in law" due to "tolerant cultural support" (Robinson, 1998; p. 113). LaFont (1996) went as far as to say that IPV in Jamaica is 'institutionalized' as the violence is accepted by the legal system and the constables.

Cultural support for IPV may undermine policing policies to reduce IPV and fuel negative policing practices to mishandle or ignore IPV. As such, even when positive policy changes are made, police are expected to ignore them. The United Kingdom Home Office (2015) noted that there are lengthy investigations in IPV cases. During this time, the victims remain at eminent risk. These lengthy investigations are deterrents to victim reporting and cooperating. Further, lengthy investigations deteriorate the victims' levels of trust in the police and the confidence in the JCF in handling IPV incidents.

In developing nations that are also struggling economically, cultural support for IPV may deter funding of IPV interventions (Luciano, Esim, & Duvvury, 2005; Muturi & Donald, 2006), such as training police officers, establishing IPV response teams, and enforcing protective orders. JCF's Assistant Commissioner Novelette Grant (2017) is committed to improving JCF's response to IPV, but lamented the lack of funding allocated for training the constables and providing interventions. The cultural support of IPV and the inadequacy of a legal response to IPV make Jamaica different from the countries of North America, Europe, and Australia from which most current research is based.

### *Severity of IPV*

Watson Williams (2018) reported that the acts of IPV experienced in her sample included slapping, pushing, kicking, dragging, choking, beating with fists, attacking with an object, and burning. Watson Williams (2018) classified hitting with fists or objects, kicking, dragging, choking, or burning as the acts of severe violence. She estimated that 18.2% of the women had experienced severe IPV. The severity of the IPV was not dependent on the victim's marital status, urbanity, income, or employment. As only the most egregious acts of IPV may be recorded in police reports, some of these acts would not be found in official criminal counts. More severe acts are found in the police reports -- including shooting and stabbing. These more severe acts can result in death.

## Employment in Jamaica

Another important difference between Jamaica and the countries of North America, Europe, and Australia is the unemployment rate. Unemployment is also a serious problem in Jamaica. Although the literacy rate is 84.0% for men and 93.1% for women, the CIA (2017) reported that the unemployment rate for youth ages 15-24 who are a part of the labor force to be 37.8% overall, and 32.4% for men and 43.8% for women. Thus, Jamaica has the 19$^{th}$ highest youth unemployment rate in the world (CIA, 2017). As such, the World Bank identified youth unemployment in Jamaica as a "persistent problem" (World Bank, 2017; paragraph 5). The CIA (2017) also reported the unemployment rate to be 12.2% overall. The measurement was operationalized as the number of people actively looking for a job as a percentage of the labor force according to the Labour Force Survey done by the Statistical Institute of Jamaica (STATIN). These statistics suggest that, among IPV victims, unemployment may be an issue.

This study supports the third goal of the Millennium Development Goals (MDG) to make gender equality and empowerment a global concern and objective. Much of what is known about IPV is derived from research in North America, Europe, and Australia where the economy may be starkly different from many developing nations. The differences in IPV rates in developing nations versus these developed nations suggest that the dynamics of IPV are not ubiquitous. Thus, it would be myopic to assume that risk factors and protective factors --- such as victim employment --- identified for IPV based on research done in North America, Europe, and Australia would similarly apply to developing nations, such as Jamaica. One size does not fit all. IPV in Jamaica is a critical issue for research to guide future policies and interventions. While victim employment is a major protective factor for IPV in wealthier nations, this may not be so in Jamaica.

## Theoretical Framework

Two popular criminological theories ---- the routine activities theory (Felson & Cohen, 1979) and control balance theory (Tittle, 1995) --- present different explanations of the relationship between victim employment and intimate partner violence (IPV). Research (discussed later) born primarily out of North America, Europe, and Australia and the World Health Organization (2010; 2011) supports that victim employment is a protective factor against IPV. This is consistent with routine activities theory. However, this relationship may not be true in developing nations, such as Jamaica. Consistent with control balance theory, a few studies (discussed later) suggest that victim employment may increase the severity of IPV as offenders seek to assert power and control. Prior to this study, there was no empirical examination of the relationship of victim employment and IPV in Jamaica.

## Research Approach

This study used a mixed-methods approach to analyze the relationship of victim employment and victim income status to IPV murder and IPV severity in the Jamaican context via analysis of 166 cases of felony-level IPV reported to the Jamaican police between January 1, 2013 and December 31, 2016.

## Study Objectives

This study had three objectives:

(a) The first objective was to explore how rivaling theories of IPV are represented in the police report narratives. Content analysis of the police report narratives looked for themes of the rivaling theories (routine activities theory and control balance theory).

(b) The second objective was to identify established and new risk factors for IPV in the Jamaican context. Content analysis was done to see how the risk factors for IPV were represented in the police report narratives, and to identify new risk factors or protective factors in the Jamaican context.

(c) The third objective of this study was to examine the relationships between victim employment and victim income status and IPV.

    a. First, the study tested for differences in the risk factors for IPV between employed victims and unemployed victims and between victims with income and victims with no income.

    b. Second, the study tested if the risk factors can predict the odds of the victim employment or of the victim having income.

c. Third, based on the routine activities theory as the prevailing theory, the study tested the hypotheses that
    i. employed victims have lower odds of IPV murder than unemployed victims, and
    ii. victims with income have lower odds of IPV murder than victims with no income.
d. Fourth, based on the routine activities theory as the prevailing theory, the study tested the hypotheses that
    i. victim employment decreases the severity of IPV, and
    ii. victim income status decreases the severity of IPV.

The study has the inherent limitations of secondary data. The crimes included are felony-level IPV which came to the attention of the Jamaican police. As IPV is highly underreported, these cases may be more representative of the most egregious cases of IPV rather than of the IPV in Jamaica in general. As the data is derived from a homogenous population, the results should not be considered generalizable outside of the Jamaican context.

The results of the study have serious implications for preventative strategies for IPV in Jamaica. If employment is supported as a protective factor for severe IPV, the preventative strategies should include assisting victims obtaining gainful employment. By contrast, if employment is found to increase the severity of IPV, then policies need to be in place to provide protective services for employed victims.

## Ethical Considerations

This study was approved by the University of Central Florida's (UCF) Institutional Review Board (IRB). See Appendix A. This study is partially a secondary data analysis of publicly available data (Jamaican police reports). No contact was made with the subjects of this study as given in the dataset. The dataset was de-identified by removing all proper nouns. For further protection of the human subjects, data was presented in the aggregate. If quotes are being used in dissemination, pseudonyms will be used in place of proper nouns, such as the subjects' names and police stations. Identifying information for particular constable stations was kept confidential.

The study used an anonymous online survey to get ratings of the severity of IPV in the police reports. The survey was delivered online via UCF's Qualtrics tool. For this portion of the study, the anonymous adult respondents were asked to provide informed consent before starting the survey. The informed consent section of the survey alerted the respondents that the narratives could be upsetting (See Appendix B). Neither personal identifiable information nor private health information was collected in this survey.

## Organization of the Study

Chapter two elaborates the two rivaling theories to explain the relationship between victim employment, victim income status, and IPV in the Jamaican context. These theories are used as codes for the qualitative analysis. The prevailing theory, Felson and Cohen's routine activities theory, formed the basis of the hypotheses. Control balance theory formed the basis for alternative explanations.

Chapter three reviews the extant literature on the relationships between IPV and victim employment and victim income status. Victim employment and victim income

status serve as the independent variables for the quantitative analyses. Additionally, the relationship of the globally-established risk factors for IPV (sex, age, education, marital status, cohabitation, estrangement, alcohol and substance abuse, history of IPV, offender employment, weapon, time of event, and urbanization) are discussed. These risk factors are then used as codes for the qualitative analysis and as control variables for the quantitative analysis.

Chapter four provides a descriptive analysis of the secondary dataset provided by JCF that was utilized for the study.

Chapter five explains the methodology of the qualitative analysis which entailed content analysis using focused coding and elaborative coding.

Chapter six presents the results of the qualitative analysis.

Chapter seven explains the methodology of the quantitative analysis.

Chapter eight presents the results of the quantitative analysis.

Chapter nine presents a summation and discussion of the major research findings and the limitations of the study.

Chapter ten presents the theoretical, research, and public policy implications of the study. Public policy implications are presented with focus on strategic intervention via a multi-faceted model.

# CHAPTER TWO: THEORETICAL FRAMEWORK

Two popular criminological theoretical perspectives support strikingly different explanations of how victim employment may impact IPV. Marcus Felson and Lawrence E. Cohen's (1979) routine activities theory suggests that victim employment would reduce victimization. By contrast, Charles Tittle's (1995) control-balance theory suggests that victim employment would increase victimization. Both theories take a Hobbesian approach to human nature and accept all behavior, including IPV, as resulting from rational choices. But, as demonstrated in Figure 2, the theories have opposite predictions about the impact of victim employment on IPV.

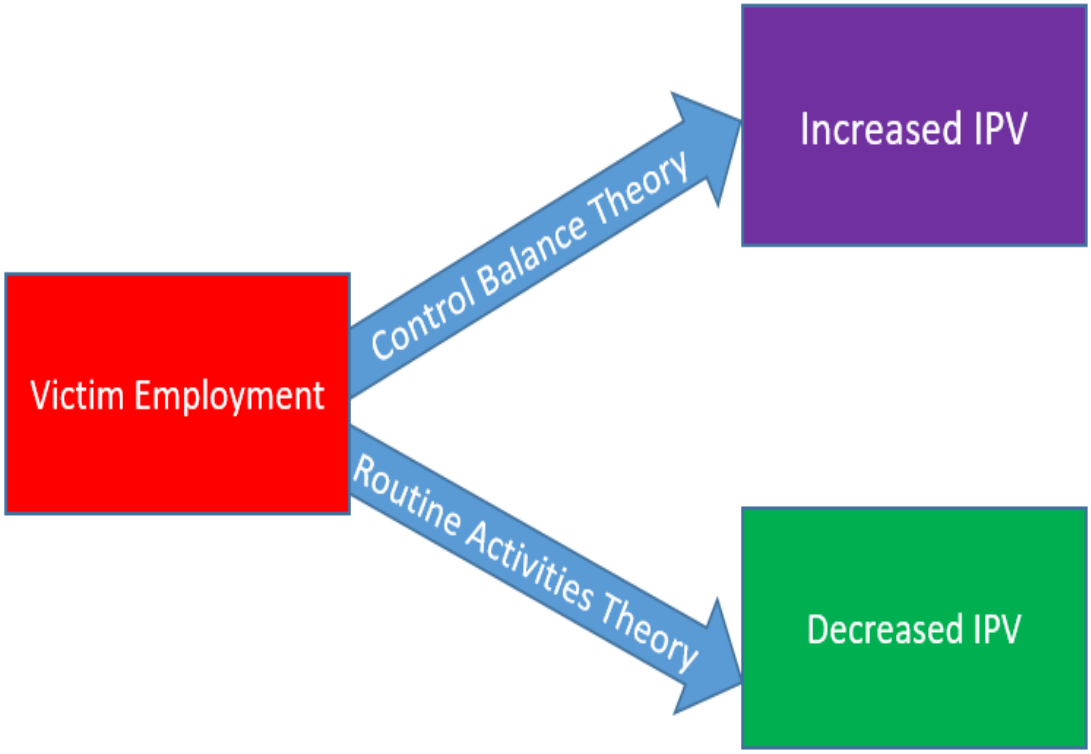


Figure 2: Rivaling Theories of the Impact of Victim Employment on IPV

## Routine Activities Theory

Felson and Cohen (1979) introduced routine activities theory in their article entitled *Social Change and Crime Rate Trends: A Routine Activity Approach*. They argued that all crime was temporally and spatially related. Felson and Cohen postulated that three factors must converge in space and time for crimes to occur: (a) motivated and capable offenders; (b) suitable targets of victimization; and (c) absence of capable formal or informal guardians. The routine activities of potential victims bring them closer in space and time to motivated offenders in the absence of guardians who could prevent victimization. Felson and Cohen (1979) simply assumed the presence of motivated offenders (Rice & Smith, 2002) without further exploration of what causes motivation. Felson and Cohen did not blame the victims, but note that the activities or the decisions of the victims may increase their likelihood of victimization. Capable guardians are those persons who, by their presence and more, discourage motivated offenders from acting at that specific moment in time in that specific place. The lack of any one of these three factors is sufficient to prevent victimization. Conversely, the increased convergence of these three factors will result in an increase in victimization. Routine activities theory has been useful in guiding research concerned with lifestyle factors and repeated victimization, including IPV (Mele, 2009).

According to routine activities theory, factors that increase the convergence of the victim and the offender (such as cohabitation, co-parenting, and unemployment) will increase IPV. The home may be the most dangerous place for IPV victims (Messner & Tardiff, 1985; Mustraine & Tewksbury, 1999). At their homes, IPV victims and their partners (IPV offenders) converge temporally and spatially in the absence of capable

guardians. Victim employment that takes the victim away from the home may decrease victimization by reducing the convergence (Capaldi, Knoble, Shortt, & Kim, 2012). As such, Felson and Cohen would view victim employment as a protective factor for IPV solely as such employment reduces the geospatial convergence of the intimate partners.

In accordance with routine activities theory, victim employment outside the home reduces opportunities for IPV. But, abused women may work from home. While routine activities theory informs the likelihood of the incidence of victimization, the theory is silent of the severity of the violence. The possibility exists that, while the frequency of violence may be less for employed victims, the severity of the violence may be increased. Research is needed in this regard. Additionally, the theory does not address other aspects of victim employment, such as income production, that may also reduce IPV.

If routine activities theory is correct (victim employment decreases IPV), there are serious implications for public policy and strategic intervention. Solutions to ending IPV should include assisting victims in obtaining gainful employment. This may be no easy feat in Jamaica where the youth unemployment rate is an alarming 37.8% (Central Intelligence Agency, 2017).

## Control Balance Theory

A defining characteristic of IPV is an imbalance of power and control (Felson & Messner, 2000). In postulating his control balance theory, Charles Tittle (1995) did not address spatial dynamics. Rather, Tittle proposed that a person's behavior in a relationship is determined by the need to maintain a certain 'control ratio'. The control ratio is the amount of control a person exerts over the other person in the relationship (denominator) compared to the amount of control the other person exerts over that person

(numerator). Ideally, the ratio would be one: one. The crux of the theory is that deviance occurs when there is an imbalance in this ratio.

Applying control balance theory to IPV, the offender and the victim have a relationship typified by an imbalance of control. The offender maintains more control over the intimate partner than that intimate partner has over himself or herself. That is, the offender has a 'control surplus'. As a result of this control surplus, the offender engages in exploitative, plundering, and capricious behaviors.

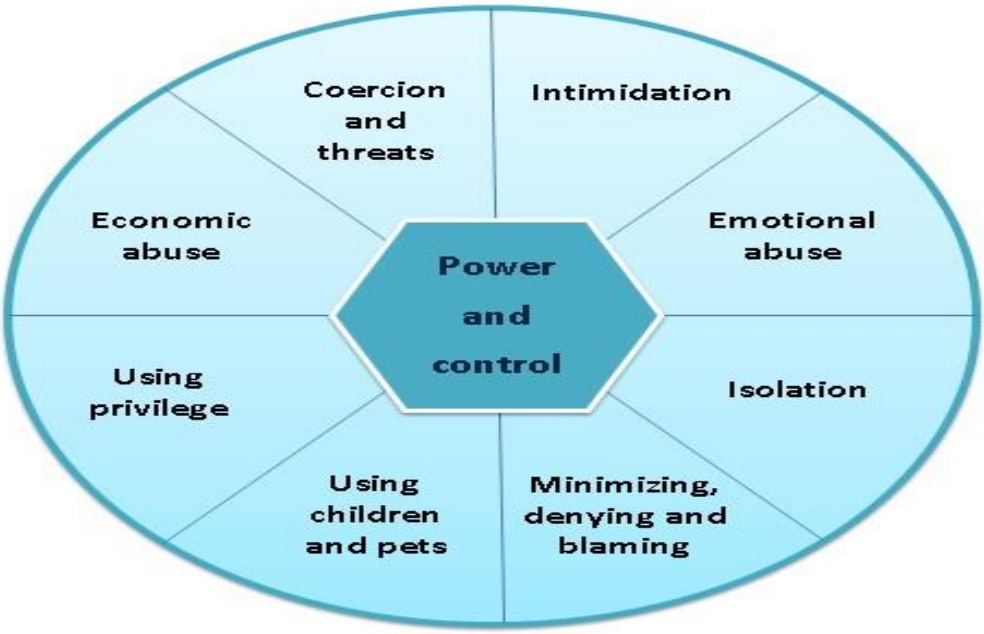


Figure 3: Duluth Power and Control Wheel (Domestic Abuse Intervention Project, 1982)

Although it predates Tittle's control imbalance theory, the widely-used Duluth power and control wheel (Domestic Abuse Intervention Project, 1982) practically illustrates the exploitive behaviors postulated by Tittle as IPV offenders try to maintain control over their partners in an imbalanced relationship. As demonstrated in Figure 3, these categories of behaviors are: (a) intimidation; (b) emotional abuse; (c) isolation; (d)

minimizing, denying, and blaming; (e) using children and pets; (f) using privilege; (g) economic abuse; and (h) coercion and threats. These categories of behaviors can be applied cross-culturally and contextually. Research supports that physical violence is almost always accompanied by psychological abuse (Meekers, Pallin, & Hutchinson, 2013). It is noteworthy that the categories do not include IPV per se. Rather, the wheel focuses on behaviors that may precede or accompany IPV.

WHO (2010) reports that IPV entails physical abuse (such as hitting and beating) and sexual abuse (including forced sexual intercourse) as well as emotional abuse (such as humiliation and intimidation) and controlling behaviors (such as isolating and restricting financial access). Arscott-Mills (2001) did a descriptive study of a convenience sample of women who accessed the services of the Women's Crisis Centre, the only IPV shelter for women in Jamaica. She found that over 98% of the women had experienced emotional and psychological abuse and 90% had been physically assaulted. Serbanescu et al. (2010) reported that 75% of the Jamaican women in their sample had been subjected to controlling behaviors by their intimate partner, and such behaviors were significantly associated with physical IPV. As such, research support that Jamaican IPV offenders engage in the behaviors indicated by the power and control wheel.

If the intimate partner has (or is perceived to be gaining) greater control that threatens to upset the offender's control surplus, the offender will engage in behaviors to regain the control surplus. Title categorized these behaviors as predation, such as IPV and sexual assault. Note that, although the offender may still have a control surplus, the offender perceives the surplus as reducing and so perceives a control deficit. The victim's response to the control imbalance is submission characterized by unthinking obedience.

Tittle's control balance theory has the advantage of explaining related non-violent behaviors by both the victims and the offenders.

By providing income, victim employment allows the victim to have more control in the relationship than if the victim is unemployed. Unlike the geospatial focus of routine activities theory, control balance theory focuses on the income provision aspect of victim employment. In accordance with Tittle's control balance theory, offenders would view victims having income as a threat to the offender's control surplus and thus react with increased IPV. Offenders would use tactics delineated in the Duluth power and control wheel to prevent the victim from gaining and maintaining employment. Control balance theory provides a prediction that is in polar opposition to the prediction of routine activities theory. Namely, due to providing income, victim employment will increase IPV.

In the literature, control balance theory has been successfully used to explain IPV and related behaviors. Using a sample of 2,783 college students, Nobles and Fox (2013) assessed the control ratio in relation to stalking by an intimate partner. They found that women significantly were more likely to report having a control deficit and being a victim of stalking, and these two variables were correlated. By contrast, men were significantly more likely to report having a control surplus and perpetrating stalking, and these two variables were correlated. Castro, Nobles, and Zavala (2017) tested control balance theory for IPV as reported on the Conflict Tactics Scale (Straus, 1979). Their sample consisted of 401 college students. Like Nobles and Fox, Castro et al. also found that a control deficit was significantly associated with greater IPV victimization and a control surplus was significantly associated with greater perpetration. A limitation of

these studies is that they both utilized college samples. While college samples undoubtedly includes some IPV offenders and victims, a future avenue for research would be testing of control balance theory with non-college samples or samples consisting solely of IPV victims and IPV offenders.

Using a birth cohort of 941 New Zealanders who were age 21, Magdol, Moffitt, Caspi, & Silva (1998) examined their experience of IPV in their relationships. Magdol et al. reported that the balance of power between the partners was a significant predictor of the odds of IPV. Yuksel-Kaptanoglu, Turkyilmaz, and Heise (2012) used a cross-sectional national sample of 12,795 Turkish women between 15 to 49 years old. Women who reported that their male lovers did three or more controlling behaviors were 2.15 times more likely to experience IPV. Women who reported that the controlling behavior was isolating her from her family were 3.82 more likely to experience IPV. Further, women whose husbands contributed more to the familial budget were almost three times more likely (odds ratio = 2.96) to experience IPV. Rahman, Hoque, and Makinoda (2011) reported that household decision making power were strong predictors of IPV for Bangladeshi women. Similarly, Hindin and Adair (2002) reported that household decision making variables emerged as strong predictors of IPV in their Philippine sample. Further, the greater the decision making control of the male partner, the greater the extent of IPV.

Castro et al. also described control balance theory as being “racially, sex, and socioeconomically neutral” (p.4). Like routine activities theory, control balance theory also has the benefit of being culturally neutral and so both theories can be applied cross-culturally and cross-nationally.

If the control balance theory is correct (victim employment increases IPV), public policy and strategic intervention need to focus on increased protection and preventative measures for employed victims. Responses in developed nations that focus on relocation of the victim may not be desirable if the victim would lose her employment.

## Summation

Focused on the geospatial dynamics of victim employment, routine activities theory predicts that victim employment will reduce IPV by reducing the geospatial convergence of the victim and the offender absent a capable guardian. By contrast, focused on the income-producing nature of victim employment, control balance theory predicts that victim employment will increase IPV as offenders act to maintain control over their victims.

# CHAPTER THREE: REVIEW OF THE LITERATURE

In the literature, the term ‘domestic violence’, ‘spousal violence’, ‘wife abuse’ and ‘gender violence’ are often used interchangeably. While ‘spousal violence’ and ‘wife abuse’ are synonymous with IPV, ‘domestic violence’ often encompasses all violence within a familial context and ‘gender violence’ usually encompasses all violence against women regardless of the relationship to the offender. The terms ‘intimate partner violence’, ‘spousal violence’, ‘wife abuse’ and ‘gender violence’ are not commonly used in Jamaica; rather, the commonly-used term is ‘domestic violence’. For this review of the literature, unless otherwise specified, the five terms are being used interchangeably to refer to violence against intimate partners.

## Victim Employment and Victim Income Impacting IPV

Cross-nationally, there is a wealth of studies describing IPV victims and comparing incidence and prevalence statistics to non-abused persons that have led to the establishment of risk factors for IPV. Surmising these studies, WHO (2011) and the Centers for Disease Control and Prevention, CDC, (2017) identified victim unemployment as a risk factor, and conversely, victim employment as a protective factor for IPV. Victim employment decreases the interaction with the offender in the home. That is, the geospatial convergence of the offender with the victim absent a capable guardian is reduced.

In addition to its geospatial aspect, victim employment also has an income producing aspect. By providing income, victim employment should theoretically increase the victim’s control over the couple’s resources. According to control-balance theory, this imbalance of control would lead to increased IPV as the offender strives to regain a

surplus of control. Similarly for victim employment, WHO (2011) and the CDC recognized victim's low income or non-existent income as a risk factor for IPV.

Watson Williams (2018) reported that just over half (56.8%) of the Jamaican women in her national probability sample were employed. As such, victim employment may be a critical cause of concern to address any interventions to reduce IPV in that nation.

***Victim Employment or Victim Income Decreasing IPV.***

Supporting routine activities theory, studies based primarily in the North America, Europe, and Australia have supported that victim employment reduces IPV. Capaldi et al.'s (2012) systematic review of the 228 articles published in peer-reviewed journals reporting on empirical studies. All the studies originated from the United States, Canada, United Kingdom, and New Zealand. Capaldi et al. confirmed that there is a significant association between victim unemployment and IPV, and so they concluded that victim unemployment is a robust predictor of IPV. Conversely, victim employment reduced the likelihood of IPV. Although, Capaldi et al. were astute to note that the studies supporting this finding were cross-sectional, this study provides strong support for victim employment decreasing IPV in developed nations.

Using a national probability sample of 4,780 married or cohabitating American couples, Rodriguez, Lasch, and Lee (2001) looked on the impact of victim employment status on IPV while controlling for alcohol misuse, family income, education, age, and welfare recipient status. They measured employment categorically as full-time employed, part-time employed, working but also receiving welfare benefits, and non-employed. Family income was measured as the consolidated income of both partners regardless of

source (salary, support payments, public assistance). Using logistic regression, Rodriguez et al. found that full-time employed persons were least likely to report IPV while those working but also receiving welfare benefits were most likely. Being part-time employed or non-employed had no effect on IPV. A routine activities approach to IPV is supported by the reduction in IPV for full-time employed respondents, but is antithetical for working with welfare benefits and part-time employed respondents. Family income did not gain statistical significance in any of their models.

Looking at the employment status of both the victim and the offender for a sample of 497 American IPV victims, Hayes (2016) reported that risk of IPV was the least when both persons were employed and the highest when both persons were unemployed. The risk of abuse was reduced whether the victim or the offender was employed, which may be due to reduced convergence of the two. If only the victim was working, the risk of IPV was reduced by 51%. If only the offender was working, the frequency of IPV was reduced. Looking at the income aspect of victim employment, Yuksel-Kaptanoglu et al. (2012) that Turkish women with income were at reduced risk of IPV.

Two LAC studies also support the protective nature of victim employment for IPV. Villareal (2007) reported that, using probit regression models, victim employment reduced the risk of IPV for his sample of 33,709 Mexican women (defined as age 15 or above) residing with a male intimate partner if other characteristics of the relationship were controlled (such as education, urbanity, number of children). Noteworthy, without these controls, victim employment appeared to increase IPV. This finding provides limited support for the position that, in accordance with routine activities theory, victim

employment decreases IPV in LAC. No study was found that tested the impact of victim employment on IPV in the Commonwealth Caribbean.

***Victim Employment or Victim Income Increasing IPV.***

In accordance with control balance theory, victim employment may be associated with higher rates of IPV as offenders attempt to maintain their control surplus and prevent a perceived control deficit. According to Postmus, Plummer, McMahon, Murshid, and Kim (2012), 31.6% of the 120 American women in their sample reported being beaten if they even suggested that they needed to get a job. Powers and Kaukinen (2012) provided a longitudinal review of 28 years of data from the National Crime Victimization Survey in the United States to decipher variation in the annual rates of non-lethal IPV against women as a function of race and employment. Their definition of non-lethal IPV included sexual assaults, physical assaults, and robberies committed by an intimate partner. Most of the offenses were simple assaults. Powers and Kaukinen found that, between 1980 to the mid-2000's, victim employment was associated with higher risk for IPV. As of 1997, the difference in IPV rates between unemployed and employed women began to reduce. Using a sample of 512 Hawaiian women, Crowne, Juon, Ensminger, Burrell, McFarlane, and Duggan (2011) reported an association between victim employment and IPV that persisted longitudinally for six to eight years later.

Using a sample of 373 women in Nigeria, Mapayi, Makanjuola, Fatusia, and Afolabi (2011) found that employment was significantly associated with higher prevalence of IPV. Using a cross-sectional sample of 10,996 Bangladeshi women, Rahman et al (2011) found that the victim's current employment status predicted IPV at a particular timepoint. Further, victim employment increased the odds of IPV by 69%.

Meekers, Pallin, and Hutchinson (2013) found that employed women in their nationally representative sample of 16,939 Bolivian women were more likely to experience IPV than unemployed women. Oliveira, Cardoso, Almeida, Cardoso, and Gutfilen (2014) found that 63.5% of the 1,000 battered Brazilian women in their sample were employed and 50.9% of them were the primary breadwinners. Similarly, in the Commonwealth Caribbean, women have surpassed men in the attainment of high school diplomas and university degrees (Jeremiah et al., 2013) and can be financially independent of their male lovers. Arscott-Mills (2001) even found that many Jamaican women are the sole financial providers for the family. Yet these women remained in the violent relationships. Consistent with the control balance theory, Arscott-Mills (2001) and Jeremiah et al. (2013) suggested that Caribbean women appear to be more at risk for IPV if they are employed as their male partners seek to assert their dominance.

These studies suggest that, in accordance with control balance theory, victim employment may lead to an increase in IPV. These studies did not look at the impact of victim employment on IPV murder. Unfortunately, these studies did not test the impact of victim employment as a predictor variable for IPV.

***Victim Employment or Victim Income Not Impacting IPV.***

Still, some studies have failed to find a relationship between victim employment or victim income and IPV (Hindin & Adair, 2002; Mavrikiou, Apostolidou, & Parlalis, 2014; Mele, 2009). Basing her study out of routine activities theory, Mele (2009) could not find a statistically-significant relationship between victim employment and repeat IPV using her sample of 823 American IPV victims (92% of whom were women). Using Chi Square tests of independence, Mavrikiou et al. (2014) surveyed 1,107 Cypriot

women to uncover the associated factors for IPV. They found that victim employment barely gained statistical significance ($p = .095$) and that offender employment had no significant association with IPV. Further, neither victim income nor offender income predicted IPV. However, low family budget predicted IPV.

Hindin and Adair (2002) also found no statistically significant relationship between victim employment or offender employment and IPV for their sample of 2,050 Philippine women. However, they found that low household income and household income distribution did significantly impact IPV. For their sample of 2,401 Australians, Ahmadabadi, Najman, Williams, and Clavarino (2017) reported that income of the female intimate partner had no significant impact on IPV. However, they found that low household income was a risk factor for IPV while high household income had a protective effect. Still, Ahmadabadi et al also reported that income imbalance where the female intimate partner had the greater income had a protective impact on IPV.

Wijk and Bruijn (2012) used a sample of 325 men and 491 women in Curacao, a Dutch territory in the Caribbean, and found that victim employment decreased the risk for psychological abuse but had no impact on IPV for women. Lacey, Cummings, Powell Sears, Matusko, Jeremiah, and Jackson (2017) studied relationship conflict between Caribbean couples in Jamaica, Guyana, and the United States to uncover sociocultural effects. The sample from Jamaica came from the urban areas of Kingston, Saint Andrew, and Greater Portmore. Lacey et al found the household income quartile was significantly associated with relationship conflict in Guyana and the United States. However, they found no significant relationship between household income (measured as quartiles) and relationship conflict in Jamaica. For her sample of Jamaican women, Watson Williams

(2018) reported that the severity of the IPV was not dependent on the victim's employment.

***Bi-Directionality.***

Showalter (2016) did a systematic review of 20 quantitative studies regarding employment instability and IPV in the United States. These studies used clinical samples of women in shelters or receiving welfare assistance. In contrast to this proposed study, Showalter used IPV as the predictor variable and victim employment as the dependent variable. Despite economic hardship, Showalter surmised that the studies widely suggested that IPV offenders were not supportive of victim employment. All the studies supported that IPV increased instability of victim employment as offenders attempted to sabotage the victim's employment and cause job loss or cause the victim to quit his/her job. Nevertheless, more importantly, these studies highlight an important methodological issue--- the relationship between victim employment and IPV may be bidirectional or cyclical. That is, victim employment may impact IPV, and simultaneously IPV may impact employment. Illustratively, Adams, Tolman, Bybee, Sullivan, and Kennedy (2013) found that IPV had negatively impacted job stability for their sample of 503 female welfare recipients in America. Ragusa (2017) reported that the IPV victims whom she interviewed told stories of their abusers actively interfering in their ability to get and to retain employment through physical attacks, psychological abuse, and controlling behaviors. Still, the WHO and the majority of studies treat victim employment as a predictor variable that serves as a protective factor for IPV as the dependent variable. Therefore, this study will do so also.

***Interaction Effects.***

Conceptually, victim employment is a deceiving complex variable due to possible interaction effects with other risk or protective factors for IPV. Employment is often considered one aspect of the structural variable of socioeconomic status (SES). Other frequent aspects of SES are education, occupation, and income. Low SES increases the risk of IPV (Smith, 2016). Worldwide, low education status places women at greater risk of being IPV victims (WHO, 2010; Capaldi et al, 2012). This is also true for Jamaican victims (Serbanescu et al., 2010).

Victim employment is also related to relationship-related risk factors for IPV; such as household income, poverty, income differential, and victim economic dependence. Poverty of the couple and income inequality between the couple increase the risk of IPV (WHO, 2010). Further, WHO (2010, 2011) reported that women living in poverty are at greater risk for IPV. Capaldi et al. found that income is a strong predictor of IPV. Interestingly, Haniff (1998) dismissed the notion of poverty as a cause for IPV in the Commonwealth Caribbean. Rather, she stated that poverty was a correlate. Haniff's assertion may have some merit given that the Commonwealth Caribbean nations with the highest levels of IPV are arguably two of richest -- Trinidad and Tobago and Barbados-- and two of the poorest --Guyana and Jamaica (UNODC, 2011). Haniff placed the onus of IPV on gender inequality.

Finally, victim employment is related to macrostructural factors; such as gender inequality, access to employment, and the national unemployment rate. UNICEF (2000) identified women's economic dependence on men and limited access to employment or

education as contributors to IPV. Garcia-Moreno et al. (2005) identified nations with high unemployment rates as being at increased risk of widespread IPV.

Watts and Zimmerman (2002) suggest that the economic structure globally is changing and allowing for change in women's role in the economy. As such, women are becoming more economically empowered. But, they suggested that patriarchal cultures are resistant to any change that diminishes – albeit equalizes – the status of men. Accordingly, this economic upturn for women may have actually resulted in an antithetical increase in IPV as men fear the loss of power.

## Other Risk Factors for IPV

From the current literature, other risk factors may interact with victim employment to affect the IPV. WHO (2011) noted that additional risk factors for IPV were sex, age, marital status, estrangement, shared minor children, alcohol and substance abuse, history of IPV, and infidelity of the offender. Capaldi et al. (2012) completed a systematic review of the literature on the risk factors for IPV using 228 articles published in peer-reviewed journals. Their inclusion criteria required that IPV be an outcome variable. Additionally, the studies had to include a comparison group of non-abused persons and a continuum of aggressive behaviors. The 228 studies utilized 95 unique samples. The vast majority of the samples came from North America, Europe, and Australia. Capaldi et al. (2012) identified age, gender, socioeconomic status, alcohol and substance abuse as among the risk factors for IPV.

### *Sex.*

WHO (2010) identified that the typical victim of IPV is female while the offender is typically male. While the focus of most IPV research is on female victims of male

offenders, both men and women perpetrate IPV and both men and women can be victims. In the same relationship, the violence can be bidirectional. That is, persons can be both victims and offenders of IPV in the same relationship. From their systematic review, Capaldi et al. (2012) reported that generally women and men are equally likely to perpetrate IPV. In support, Le Franc et al. (2008) asserted that men are as likely to experience IPV as women. However, both Capaldi et al. and Le Franc et al. illuminated that women suffer greater injury due to IPV, and so women are the typical victims of severe IPV.

Most of the studies included in Capaldi et al.'s review relied on self-report. In these studies, man-on-woman violence may have been better captured than woman-on-man violence. Further, some of the man-on-woman violence can be retaliatory or self-defensive. Research suggests that partner homicide where the abused woman kills her spouse is a frequent end result of grave IPV (Leonard, 2002).

In the Caribbean, being female is a major risk factor for IPV (Wijk & Bruijn, 2012). Women may be more at risk due to cultural factors (such as definitions of sex roles; gendered socialization, and beliefs in the inherent superiority of men) that place women in a subordinate role to men (UNICEF, 2000). Indeed, IPV flourishes in cultures where women are regarded as not equal to men and male hegemony prevails (Haniff, 1998). Jeremiah et al. (2013) averred that Caribbean men use IPV to assert their masculine identities and enforce power and ownership over their female partners.

***Age.***

Younger age is a risk factor for IPV victimization (WHO, 2010; Capaldi et al., 2012; CDC, 2017; Hindin & Adair, 2002; Rahman et al., 2011). Similar to other crimes,

IPV seems to be greatest among adolescents to young adults under the age of 30 (WHO, 2010). By contrast, one study found that the age group most at risk for IPV was 45 to 54 year olds (Mavrikiou et al. 2014). Current research indicates that the typical victim is younger than her offender (WHO, 2010; Pereira, Vieira, & Magalhaes, 2013) and that the offender being older than the victim increases the risk of IPV (Hayes, 2015). Consistent with the extant literature, young age is a risk factor for IPV in Jamaica (Bott et al., 2012; Serbanescu et al., 2010). Further, Watson Williams (2018) reported that Jamaican women under age 30 were more at risk for IPV and that Jamaican women who started cohabiting with a partner at a young age were most at risk for IPV.

***Education.***

WHO (2010) reported low educational level of the offender and the victim as risk factors for IPV. Studies support this in Latin American and the Caribbean. Wijk and Bruijn (2012) found that the low educational level of the victim was a significant risk factor for IPV in Curacao. Funded by the Inter-American Development Bank, Arscott-Mills (2001) did a descriptive study of a convenience sample of women who accessed the services of the Women's Crisis Centre in Kingston, Jamaica. The Women's Crisis Centre is operated by Women Incorporated, a non-governmental organization (NGO), and provides counseling and is the only shelter for women who have been victims of IPV. Arscott-Mills analyzed 187 questionnaires completed by staff after immediately intake interviews with women who had been victimized by a male partner. Arscott-Mills (2001) indicated that 25% of the women in her sample had only an elementary education; 46% had completed secondary education; and 25% had done some post-secondary vocational school. Only 2% had a university degree. Her findings may be congruent with population

statistics. Watson Williams (2018) reported that the majority (64.7%) of the women in her national probability sample of Jamaican women had at least a secondary education. Further, IPV was more prevalent among Jamaican women with lower educational levels.

***Marital Status and Cohabitation.***

According to WHO (2010), married women are more likely to be IPV victims. Many studies support WHO's assertion (Pereira et al, 2013; Lund, 2014). By contrast, some studies support that unmarried, cohabitating couples are more likely to engage in IPV (Caetano, Field, Ramisetty-Mikler, & McGrath, 2005; Cui, Durtschi, Donnelan, Lorenz, & Conger, 2010; Magdol et al., 1998; Mavrikiou et al., 2014). Of the 373 Nigerian women in their sample, Mapayi et al. (2011) found that single and separated women were most at risk for IPV. Still, other studies suggest that there is no difference in the rate of violence between married victims and cohabitating victims (Huang, Son, & Wang, 2010). Further disintegrating the clarity, some studies have suggested that single mothers were more at risk of IPV than married or cohabitating mothers (Huang et al., 2010). The impact of marital status may be masked by interaction effects with other predictor variables; such as the presence of minor children and cohabitation. It is evident that the relationship of marital status to IPV is not clear, especially in developing nations.

Supporting routine activities theory, the mutual home may be the most unsafe place for IPV victims (WHO, 2011) as the offender has unmitigated opportunities to attack the victim. Mele (2009) found that cohabiting victims were more at risk for repeated victimization than persons who lived apart from the offenders. Pereira et al. (2013) reviewed autopsies of 102 female IPV homicide victims in Portugal. They found that 62% of the IPV victims died in their homes that were usually shared with the

offender. Using a representative sample of 941 young adults in New Zealand, Moffitt, Caspa, and Silva's (1998) study indicated that cohabiters were more likely than daters or married persons to experience IPV. They were nearly twice as likely as daters to experience IPV.

As far back as 1978, Roberts and Sinclair noted that many Jamaican women in their sample were choosing to not cohabit with their male lovers due to the strong risk of IPV. Rather than choosing to not date these high-risk men, these women chose strategies to reduce the opportunities for IPV. These older findings are consistent with the extant literature. By contrast, for her sample of Jamaican women, Watson Williams (2018) found no significant difference in the prevalence or severity of IPV based on marital status.

***Estrangement.***

WHO (2010) asserted that female victims are at risk for the most severe IPV when they are estranged from the offenders. Similarly, the United Nations Office of Drugs and Crime (2011) suggest that the risk of fatal IPV is greatest when the woman is trying to leave the relationship. Pereira et al. (2013) identified that nearly 60% of their sample of female Portuguese IPV homicide victims were in current relationships. However, they identified that the threat of separation was alleged as the reason for 39% of the homicides. Additionally, 58% of the female IPV homicide victims were killed by their lovers within a year of separation. Hayes (2016) studied American women and found that 44% were separated from their abusers. Initially, Hayes found that estrangement affected the severity of IPV. However, this effect was reduced to statistical insignificance when employment of the victim and employment of the offender were

entered in the model. Brownridge, Chan, Hiebert-Murphy, Ristock, Tiwari, Leung, and Santos (2008) found that, compared to women who remained married and in the home, non-lethal IPV increased nine-fold for separated women and four-times for divorced women in Canada. Their sample consisted of 359 separated (but still legally married) women, 572 divorced women, and 6,438 married women.

***Minor Children.***

Complicating the dynamics of IPV, the couples often share minor children. Pereira et al. (2013) found that over half of the fatal IPV victims shared at least one minor child with their killers. Lund (2014) found that 88% of their female IPV victims shared minor children with their abusers. For her sample of 497 IPV victims, Hayes (2016) reported that severity of IPV increased with the number of children. From her interviews with 30 female Australian victims residing in a rural area, Ragusa (2017) reported that some of the women told stories of increased severity of IPV during pregnancy with related more dire health consequences, including miscarriages. For Jamaican women, having had a pregnancy more than doubled the likelihood of IPV and 86.8% of the women experienced IPV while pregnant including 20.0% who were beaten and kicked in the abdomen (Watson Williams, 2018). Minor children can also be co-victims. Pereira et al. (2013) reported that, beyond the 102 female IPV victims, there were three sons and two witnesses who were also killed.

Another troubling concern is that the IPV is often committed in the presence of these children. Pereira et al. (2013) reported that 21% of the IPV homicides were committed in the presence of a minor child. As such, the minor children are also traumatized and IPV is intergenerationally transmitted as acceptable behavior.

***Alcohol and Substance Abuse.***

The abuse of alcohol or illicit substances by the victim or the offender increases the risk of IPV (CDC, 2017; WHO, 2010). Due to its disinhibitory effect, alcohol is considered a proximal predictor of IPV (Capaldi et al, 2012). Supporting this, Rodriguez et al. (2001) reported that alcohol use was positively associated with IPV in their national probability sample in America. In Jamaica, cannabis abuse is a societal problem. From their review, Capaldi et al. found that the combined use of alcohol and cannabis or hard drugs predicted higher incidence of IPV. Further, Capaldi et al. reported that, for women, the use of cannabis or hard drugs increased the likelihood of IPV victimization. Watson Williams (2018) reported that partners' use of alcohol and recreational drugs increased the risk of IPV for Jamaican women.

***History of IPV.***

WHO reports that a history of IPV victimization is a major risk factor for future IPV victimization (Garcia-Moreno et al., 2005; WHO, 2011). The CDC (2017) extends inclusion to a history of any physically abusive behavior (not just IPV) as a risk factor for IPV. Pereira et al. (2013) reported that 47% of their IPV homicide victims were killed by lovers who had a history of IPV against them. Looking at the offenders, past IPV perpetration may a risk factor for future IPV perpetration. Boxall, Payne, and Rosevear (2015) reported that two-thirds of their sample of 1,975 Tasmanian IPV offenders was previously apprehended for IPV in the preceding six years. Of these offenders, 18% had been apprehended more than four times. The mean number of apprehensions was three. From their sample of 1,709 arrest reports, Broidy, Albright, and Denman (2016) reported that 30% of the offenders had criminal histories of IPV. Further, 23% of the sample was

re-arrested for IPV within four years. Offenders with a history of IPV only were 2.4 times more likely than offenders with no history to have a subsequent IPV arrest. For offenders with a criminal history of IPV and other offenses, the odds ratio increased to 3.4 times.

***Urbanization.***

WHO (2010, 2011) reported that countries with greater urbanization may experience less IPV. Conversely, women living in rural communities are more likely to be victims of IPV (Garcia-Moreno et al., 2005; Hindin & Adair, 2002; WHO, 2011). In addition to being more associated with poverty than residing in an urban area, living in a rural area may mean less access to IPV social services, legal services, transportation, and employment (Ragusa, 2017). Further festering IPV, LAC research supports that persons from urban areas are less supportive of IPV than persons from rural areas (Sutton & Alvarez, 2016; Bucheli & Rossi, 2016). But the relationship between urbanization and IPV is not engraved in stone. Meekers et al. (2013) reported that rural women in Bolivia were less likely to experience IPV than women residing in the urban areas.

Interestingly, the current findings in Jamaica do not support that women in urban areas are at reduced risk of IPV. An estimated 55.3% of the Jamaican population resides in an urban area (CIA, 2017). In her sample, Arscott-Mills (2001) found that nearly half (47%) of the women were from rural areas. She analyzed the effect of urban versus rural residence using in $\chi^2$ tests, but gained no significant finding. Smith (2016) reported that there was no statistically significant difference between rural Jamaican women and urban Jamaican women in the prevalence of IPV. Finally, Watson Williams (2018) found no significant difference in the prevalence or severity of IPV in urban versus rural areas in Jamaica.

***Offender Employment.***

In routine activities theory is correct, offender employment would also reduce the convergence of the victim with the offender in the absence of a capable guardian, and so reduce IPV. Hayes (2016) confirmed this proposition with her findings that, compared to relationships where both partners are unemployed, the risk of IPV decreased by 60% if both partners were employed and by 40% if only the offender was working. By the same token, if routine activities theory is correct, offender unemployment (which increases convergence) should increase IPV. Using a sample of 12,795 Turkish women, Yuksel-Kaptanoglu et al. (2012) reported that husband unemployment increased the odds of wife abuse by 45%. The impact of husband employment did not achieve statistical significance.

Other studies suggest that the relationship between offender employment and IPV is not clear. Caetano et al. (2005) found that male employment increased the odds of recurrent IPV by 370% for their sample of 1,025 American couples. The impact of female employment did not achieve significance. However, the study did not distinguish between male-on-female IPV and female-on-male IPV. Using heterosexual American persons, Ellison and Anderson (2001) included unemployment by either partner in the past year as a control variable to predict the odds of IPV. Of their sample, 18% of the women and 19% of the men reported unemployment by either partner in the past year, but which partner was unemployed is unknown. Ellison and Anderson found a striking gender difference in the relationship between unemployment of either partner in the past year and IPV. Based on the men's self-reports on perpetrating IPV, unemployment by either partner slightly increased the odds (OR = 1.116) for male-on-female IPV.

Conversely, based on the women's self-reports, unemployment by either partner slightly reduced the odds (OR = 0.853) for male-on-female IPV.

Howell and Pugliesi (1988) used a national stratified random sample of 960 American men who completed a survey in 1976. They found that for men under the median age of 39, unemployment increased the odds of perpetrating IPV by a factor of 18.61. However, for men over the median age of 39, unemployment decreased the odds of perpetrating IPV by a factor of 2.95. While dated, Howell and Pugliesi's study highlight that there are can be interaction effects between the IPV risk factors.

## IPV Severity

WHO established the risks factors for IPV occurring in a relationship. But acts of IPV are not equal. The risk factors may be able to expand from the myopic dichotomy of IPV versus no IPV, and may also have predictive value about the severity of IPV as a scaled variable. To conceptualize, while unemployed married women who are under age 30 may be beaten by their spouses, it is possible that unemployed married women under the age of 30 with spouses that are alcohol users are more severely beaten and sustain greater injury. IPV may also escalate in severity over time. Hayes (2016) reported that increasing history of IPV incidents was positively correlated with increasing severity of the IPV event. This study will expand the dexterity of the IPV risk factors to predict the severity of IPV as a scale variable.

## Summation

Felson and Cohen's routine activities theory and the Tittle's control balance theory offer polar predictions of the impact of victim employment and victim income on IPV. Current IPV research supports both conflicting perspectives. Most of this research

was done in the developed nations in North America, Europe, and Australia and may not be appropriately generalized to developing nations where the culture and economic structure are vastly different. There is a paucity of research on the impact of victim employment on IPV in developing nations, especially LAC. Jamaica is a developing nation in the Caribbean with high rates of IPV. This study addressed this paucity and aimed to bring additional credence to one of the competing perspectives. As such, using mixed-methods, this study explored the differences between employed IPV victims versus unemployed IPV victims and IPV victims with income versus IPV victims with no income in Jamaica. Further, the study reviewed the impact of victim employment on IPV in Jamaica. Additionally, this study looked at the intervening impact of other globally recognized IPV risk factors in the Jamaican context.

## Research Questions

Based on the study's objectives, the following research questions (RQ) and hypotheses were addressed:

***Study Objective 1: Explore how rivaling theories of IPV are reflected in the narratives of the Jamaican police reports.***

RQ1.1: How are the rivaling theories reflected in the narratives of the Jamaican police reports?

***Study Objective 2: Identify established and new risk factors for IPV in the Jamaican context.***

RQ2.1: How are the globally established risk factors of IPV reflected in the narratives of the Jamaican police reports?

RQ2.2: What new risk factors of IPV are found in the narratives of the Jamaican police reports?

***Study Objective 3: Examine the relationship between victim employment and victim income status and IPV in Jamaica.***

RQ3.1: How are the risk factors for IPV different based on the victim's employment or the victim's income status?

Hypothesis 1a ($H_{1a}$): Employed victims are different from unemployed victims on the risk factors for IPV.

Hypothesis 1b ($H_{1b}$): Victims with income are different from victims with no income on the risk factors for IPV.

RQ3.2: Can the risk factors for IPV predict victim employment or victim income status in Jamaica?

Hypothesis 2a ($H_{2a}$): The IPV risk factors decrease the odds of victim employment.

Hypothesis 2b ($H_{2b}$): The IPV risk factors decrease the odds of victims having income.

RQ3.3: How are victim employment and victim income status related to IPV murder in Jamaica?

Hypothesis 3a ($H_{3a}$): Employed victims have lower odds of IPV murder than unemployed victims.

Hypothesis 3b ($H_{3b}$): Victims with income have lower odds of IPV murder than victims with no income.

RQ3.4: How are victim employment and victim income status related to the severity of IPV in Jamaica?

Hypothesis 4a ($H_{4a}$): Victim employment decreases the severity of IPV.

Hypothesis 4b ($H_{4b}$): Victims having income decreases the severity of IPV.

# CHAPTER FOUR: DESCRIPTIVE ANALYSIS OF ORIGINAL DATA IN THE JCF POLICE REPORTS

## Introduction

In Jamaica, police reports are comprised of brief fields and short explanatory narratives written in a large tome retained at the police stations. The narratives can be extremely short (even as short as just two sentences). These narratives are then entered into a central database by the statistical unit of the JCF's Research, Planning, and Legal Services Branch. However, the process appeared to be error-prone with crimes being categorized erroneously and many fields left incomplete. JCF provided a dataset of all felony-level violent crimes committed in Jamaica between January 1, 2013 and December 31, 2016. The database consisted of 14,536 victims of violent crimes. For crimes with multiple victims, there was an entry for each victim. Illustratively, a crime with four victims was listed four times. The JCF was reluctant in providing offender data, and so the only offender variables that were included in the dataset were gender, weapon, and mode of escape. Table 2 provides a list of the fields that were provided in the original dataset.

In the police reports, a violent crime is classified as murder, shooting, or aggravated assault occasioning grave bodily harm. In practice, the classifications are mutually exclusive. Like the United States' Uniformed Crime Reports, the most serious charge was the one listed in the police reports. No victims of misdemeanor IPV were included. Additionally, the dataset did not include sexual crimes.

Table 2: Columns in JCF's Original Dataset

| Incident | Victim Characteristics | Offender Characteristics | Offence Characteristics | JCF Characteristics |
|---|---|---|---|---|
| Incident ID<br>Year | Sex<br>Age<br>Nationality<br>Occupation<br>Address<br>Relationship to the Offender | Sex<br>Weapon Used<br>Mode of Travel | Offence Category<br>Date committed<br>Time committed<br>Motive<br>Context<br>Place committed<br>Location Type<br>Narrative<br>Cleared up | Area<br>Division<br>Station<br>Constable Rank |

As of 2013, constables have been asked (not mandated) to identify crimes as 'domestic violence' in their narratives by stating the relationship of the victim to the offender, but this practice is not still not uniformly done. Consequently, all 14,536 narratives had to be perused. Even in police reports where 'domestic violence' (DV) was indicated, the narratives sometimes did not identify the relationship of the offender to the victim. For some of these cases, the relationship was not intimate (such as altercations between siblings, in-laws, and other non-intimate family members).

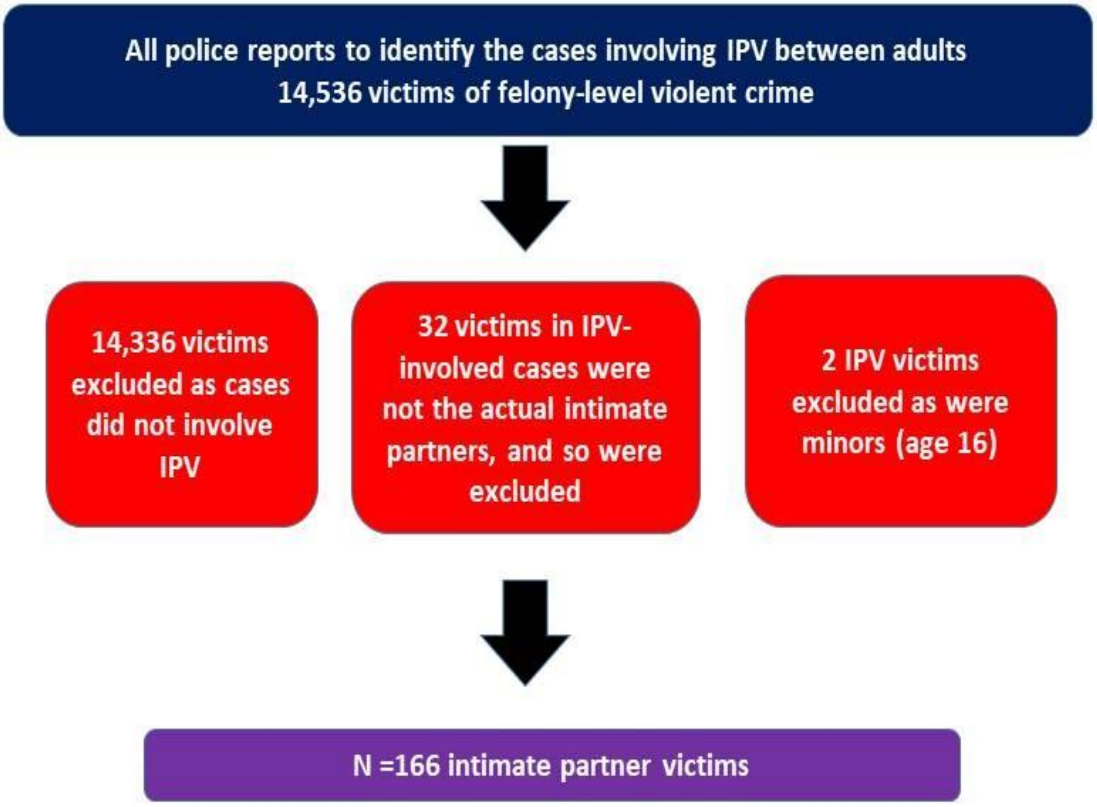


Figure 4: Sampling Schematic

**Inclusionary Criteria**

Of the 14,536 victims of violence, there were 188 unique incidents involving 200 victims where IPV was involved. It is possible that other cases involved IPV but the constables failed to note such in the police report. In these 188 unique incidents, there were 168 intimate partner victims. The other victims were six children, five parents, five other family members, an acquaintance, and 13 strangers. Both the victim and the offender recorded in the police reports had to be the intimate partners (not a minor child, other household member, or intervening character). For two of the victims, the relationship to the intimate partner dyad was unclear. Third party victims were excluded as data (such as age and employment status) was not available on the intimate partner.

Two of 168 intimate partner victims were minors. Both were 16 year old girls. Note that the age of sexual consent in Jamaica is 16 years. As the IRB approval for this study allowed only for cases where both the offender and the victim were adult intimate partners, these 34 victims (32 other parties and two minor intimate partners) were not included in the study. The sample selection process is demonstrated in Figure 4.

The final sample consisted of 166 IPV victims as recorded in the JCF's police reports. The unit of analysis was the victim. As the names and birthdates were not available for all victims, the study assumes that each victim was unique; i.e. no two cases involved the same victim. Of the 166 victims, 70 (42.2%) were murdered, 15 (9.0%) were victims of shootings, and 81 (48.8%) were victims of aggravated assaults. For the 81 victims of aggravated assaults, the offenses were recorded as 50 Wounding with Intent, 29 Aggravated Assault Occasioning Grave Bodily Harm, and two Felonious Wounding. For five of the shootings, the targets were missed and so the victims were not injured. All other victims were injured or killed.

Data checks and data cleaning across the columns were done to ensure that the data reported in the columns was consistent and error-free. Updates or corrections were done as needed. There was no victim with most of the variables having missing data and so had to be omitted from the analysis. No variable had more than 5% of the data missing. Table 3 indicates how the missing data were handled for the applicable variable. The remainder of this chapter is a descriptive analysis of the cleaned dataset.

Table 3: Statistical Handling of Missing Data

| Variable | Number of Missing Values | Percent | Statistical Handling | Value Used |
|---|---|---|---|---|
| Victim Age | 3 | 1.8 | Replace with mean for that sex | 31.5 years for women; 37 years for men |
| Cohabitation | 5 | 3.0 | Replace with mode | Not Cohabitating |
| Estrangement | 8 | 4.8 | Replace with mode | Not estranged |
| Home | 5 | 3.0 | Replace with mode | Home |
| Gun | 8 | 4.8 | Replace with mode | No gun |
| Sharp | 8 | 4.8 | Replace with mode | Sharp |
| Home Hours | 5 | 3.0 | Replace with mode | Home hours |

## Data Analysis Tool

The descriptive analysis was done using Statistical Package for the Social Sciences (SPSS) Version 24 (International Business Machines Corporation, IBM, 2016).

## Year of Victimization

Given that the JCF began requiring their constables to start noting DV in police reports in 2013, there was an increase in such reports from 2013 to 2015. There were 30 (18.1%) victims in 2013; 48 (28.9%) victims in 2014; and 53 (31.9%) victims in 2015. However, in 2016, there were only 35 (21.1%) victims. This presents a possible concerning decline which may be due to reporting practices rather than reduced victimization. Figure 5 presents the distribution of IPV victims by year.

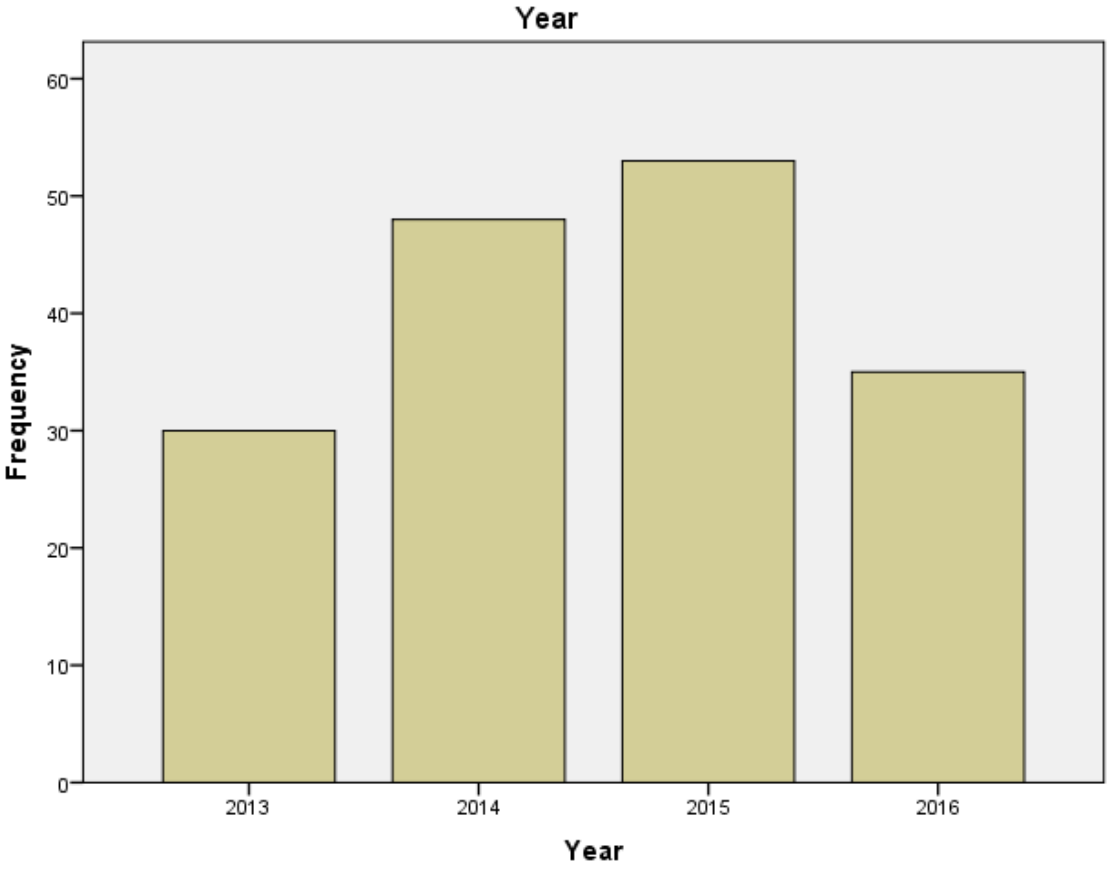


Figure 5: IPV Victims by Year, 2013 - 2016 (N = 166)

## Victim Characteristics

***Sex, Sexuality, and Nationality.***

There were 124 (74.7%) female victims and 42 (25.3%) male victims. There was one homosexual relationship involving two men. All other couples were heterosexual. As such, 41 of the offenders were female (24.7%) and 125 (75.3%) were male. Most of the victims (161; 97.0%) were Jamaican. There were one American, one Canadian, and one Dominican victim. For two victims, nationality was not reported. The majority (51; 72.9%) of the 70 murdered victims were female.

***Age.***

The victims' ages ranged from 18 to 80 with a mean of 32.9 years with a standard deviation of 11.5 years. The modal age was 20 years (11 victims) with the next most frequent age being 28 years (10 victims). The median age was 31 years. The mean age for all victims was 32.9 years with a standard deviation of 11.5 years. The mean age for the male victims (37.0 years) was higher than the mean age for the female victims (31.5 years). Figure 6 provides the distribution of the victims' ages. The ages for two of the female victims and one male victim were unknown. To accommodate data analysis, the mean age for female victims (31.5 years) was used for these two female victims and the mean age for the male victims (37.0 years) was used for the male victim.


Figure 6: Histogram of the Age Distribution of the Victims (N = 166)

Roughly half (85; 51.2%) of the victims were over 30 years old. Retirement age in Jamaica is 65 years old. Only three of the victims were 65 years old or older and so were outside the labor force. The same three victims accounted for the three outliers for Victim Age. Their ages were 66, 75, and 80 years old respectively. None of these was an extreme outlier (that is, outside three standard deviations of the mean). Figure 7 demonstrates the outliers for Victim Age using a box plot.

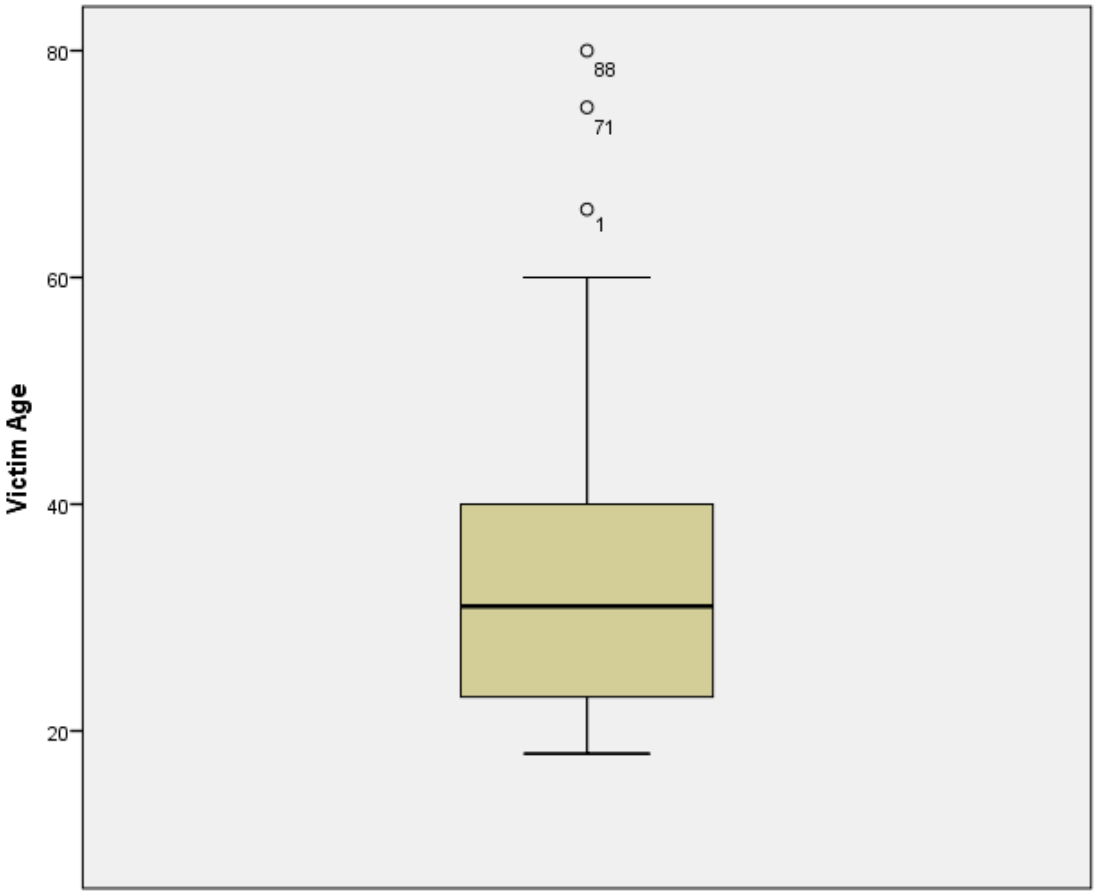


Figure 7: Box Plot of Victim Age Showing Outliers (N = 166)

From Figure 7, the distribution of Victim Age appeared to be skewed toward the right. A normal quantile-quantile plot (Q-Q plot) also indicated that the data are not normally distributed (see Figure 8). The distribution had skewness of 1.101 (standard

error of .188) and kurtosis of 1.596 (standard error of .375). The Kolmogorov-Smirnov statistic was .107 (p = .000) and the Shapiro-Wilk statistic was .918 (p = .000). These graphs and statistics confirmed that Victim Age is not normally distributed.

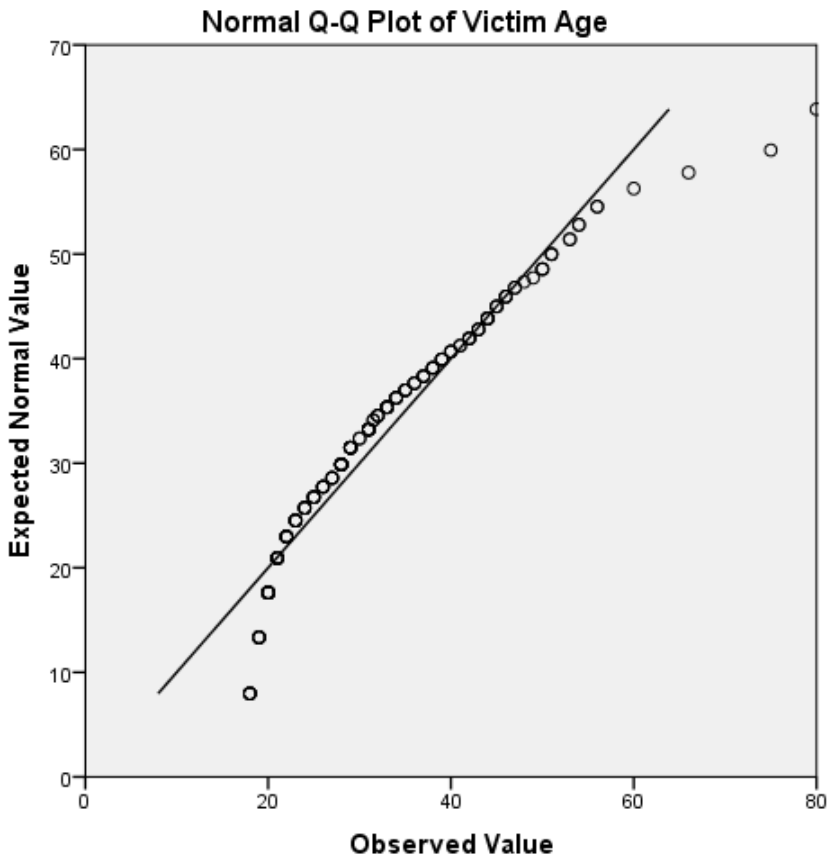


Figure 8: Normal Q-Q Plot of Victim Age (N = 166)

The distributions of Victim Age delineated by the binary factors of Victim Employment and Victim Income Status were examined. As given in Table 4, the Kolmogorov-Smirnov and Shapiro-Wilk statistics confirmed that these distributions were also not normally distributed.

Table 4: Tests of Normality for Victim Age (N = 166)

| Victim Employment | | Tests of Normality | | | | | |
|---|---|---|---|---|---|---|---|
| | | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
| | | Statistic | df | p | Statistic | df | p |
| Victim Age | Unemployed | .170 | 46 | .002 | .868 | 46 | .000 |
| | Employed | .101 | 112 | .007 | .940 | 112 | .000 |
| | No income | .168 | 50 | .001 | .866 | 50 | .000 |
| | Income | .101 | 108 | .009 | .923 | 108 | .000 |

a. Lilliefors Significance Correction

***Marital Status, Cohabitation, and Estrangement.***

In Jamaica, a common law spouse is recognized in local statutes as single man or woman who has resided with a single woman or man respectfully as husband and wife for at least five years albeit not being legally married (McGregor, 2009). In the 2009 case of *Bowes versus Taylor*, Jamaica's Supreme Court identified the eight signposts of a common law union as: (a) the two reside in the same household as husband and wife; (b) the two share daily life, including interaction with each other's family; (c) there is stability and permanence in the relationship extending over five years; (d) the two share finances, including income and expenses; (e) the two have a sexual relationship; (f) the two share children, are raising children, or plan to have children together; (g) the two treat each other as a spouse; and (h) the observations of a reasonable spectator would lead to the conclusion of a spousal relationship. In Jamaica, same-sex unions are illegal and criminalized as buggery in the statutes (Offences Against The Person Act, 1864). Therefore, same-sex marriages are non-existent and common law unions between same-sex couples are not recognized. Jamaica's Domestic Violence Act of 1996 recognized all types of unions between heterosexual couples, including common law marriages and lovers who have a 'visiting relationship' but no common residence.

Table 5: Victims' Relationship to Offenders (N = 166)

| Relationship | Frequency | Percent |
|---|---|---|
| Wife | 19 | 11.4 |
| Common Law Wife | 42 | 25.3 |
| Girlfriend | 48 | 28.9 |
| Babymother | 17 | 10.2 |
| Husband | 4 | 2.4 |
| Common Law Husband | 14 | 8.4 |
| Boyfriend | 15 | 9.0 |
| Babyfather | 7 | 4.2 |
| Total | 166 | 100.0 |

Twenty-three (13.9%) of the victims were legally married to the offenders, while 56 (33.7%) appeared to have a common law marriage. All others (87; 52.4%) had a visiting relationship. The modal relationship for female victims was 'girlfriend' and for male victims was 'boyfriend'. One boyfriend was killed by his same-sex partner. Table 5 gives the relationship of the victim to the offender. The majority (114; 68.2%) of couples were not estranged. For eight couples, the police report did not indicate if the intimate partners were estranged. Roughly half (81; 48.8%) of the couples were cohabitating. Exactly half (35) of the 70 murdered victims were married and exactly half were cohabiting with the offender.

***Infidelity.***

For 26 (15.7%) victims, the police reports indicated infidelity or that one intimate partner was in a relationship with someone else. Although infidelity was not mentioned in the police reports for 140 victims, that infidelity was not necessarily a non-issue for these victims. Of the 26 victims where infidelity was indicated, 20 (76.9%) were female. More than half (14; 53.8%) of these victims were killed.

***Urbanization.***

Geographically, most of Jamaica is rural. So, not surprisingly, the vast majority (120; 72.3%) of the victims resided in a rural area. The urban areas were identified as St. Catherine-South (which is comprised of the Greater Portmore communities), Montego Bay, and Kingston and St. Andrew. Of the 46 victims residing in an urban area, seven (15.2%) were from St. Catherine-South, seven (15.2%) from Montego Bay, and the remainder (69.6%) were from Kingston and St. Andrew.

***Victim Employment.***

The majority of the victims (105; 62.9%) reported being employed or self-employed. Almost all the occupations were non-professional. Three (1.8%) victims were pensioners (retired with income). Seven (4.2%) were students, of which all were female. A large minority (43; 25.9%) reported being unemployed. Of the 43 unemployed victims, 40 (93.0%) were female. For eight (4.8%) victims, their employment status was unknown. Looking solely at the 119 female victims whose employment status were known, 64.7% (77 women) were employed. This is a higher employment proportion than Watson Williams' (2018) report that 56.8% of the Jamaican women in her national probability sample were employed. Figure 9 provides a bar chart of Victim Employment.

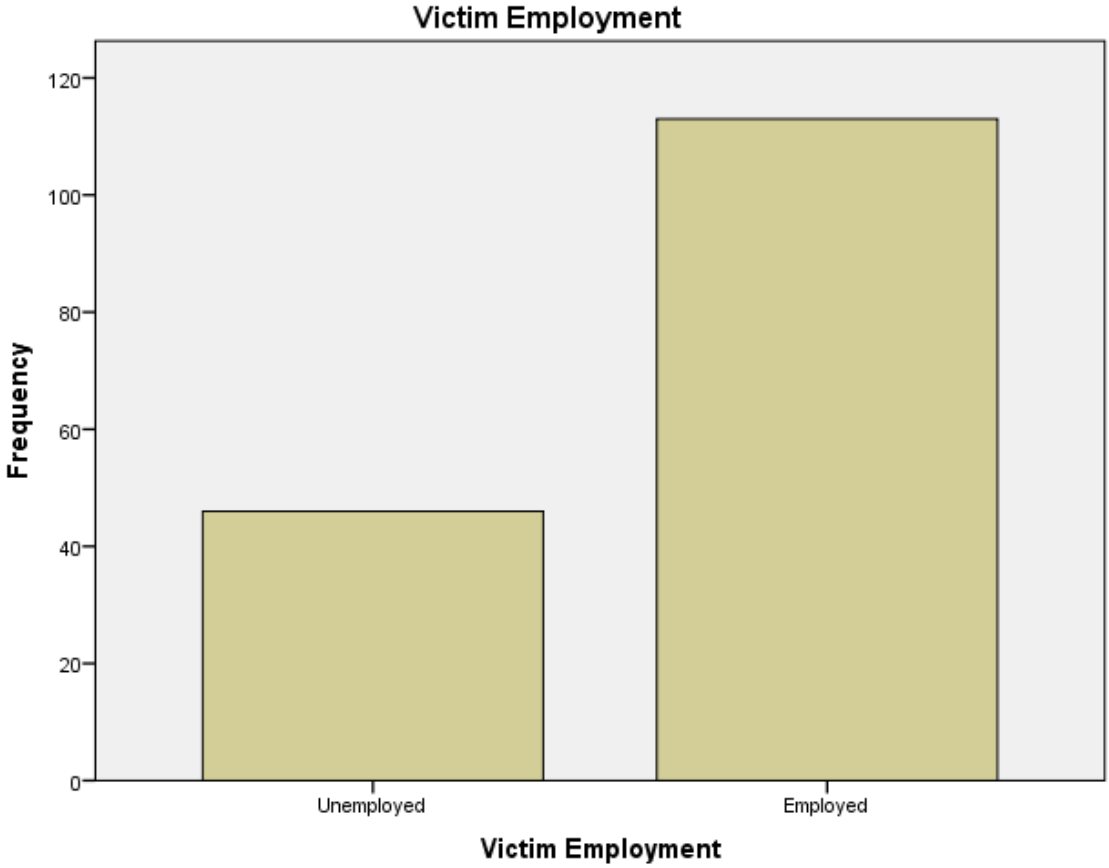


Figure 9: Bar Chart of Victim Employment (N = 166)

The most popular occupation was unskilled laborer (15; 9.1%). Interestingly, four (2.4%) of the victims were JCF constables. Table 6 uses a modified version of the International Standard Classification of Occupations (ISCO) Version 08 (International Labour Organization, 2012) to present a classification of the occupations of the victims. Fifteen (8.7%) of the victims had occupations classified ‘Professionals; Technical and Associate Professionals’. Eleven (73.3%) of these victims were women. These victims may have had post-secondary education.

Table 6: Victims' Occupations (N = 166)

| Victim's Occupation | Frequency | Percent | Valid Percent |
|---|---|---|---|
| International Standard Classification of Occupations | | | |
| Armed Forces | 9 | 5.4 | 8.7 |
| Professionals; Technical and Associate Professionals | 15 | 9.0 | 14.6 |
| Service, Sales, and Clerical Support Workers | 40 | 24.1 | 38.8 |
| Skilled Agricultural/ Forestry/ Fishery Workers; Craft/Related Trades Workers; Plant/ Machine Operators and Assemblers | 11 | 6.6 | 10.7 |
| Elementary Occupations | 28 | 16.9 | 27.2 |
| Subtotal | 103 | 62.0 | 100.0 |
| Other Occupations | | | |
| Self Employed | 5 | 3.0 | |
| Student | 7 | 4.2 | |
| Unemployed | 43 | 25.9 | |
| Unknown (Not Reported) | 8 | 4.8 | |
| Subtotal | 63 | 38.0 | |
| Total | 166 | 100.0 | |

***Victim Income Status.***

Of the 166 victims, 108 (65.1%) victims had employment-related income. These victims were employed, self-employed, or pensioned. Fifty (30.1%) of the victims had no employment-related income. For eight (4.8%) of the victims, their income status was unknown. Figure 10 provides a bar chart of Victim Income Status.

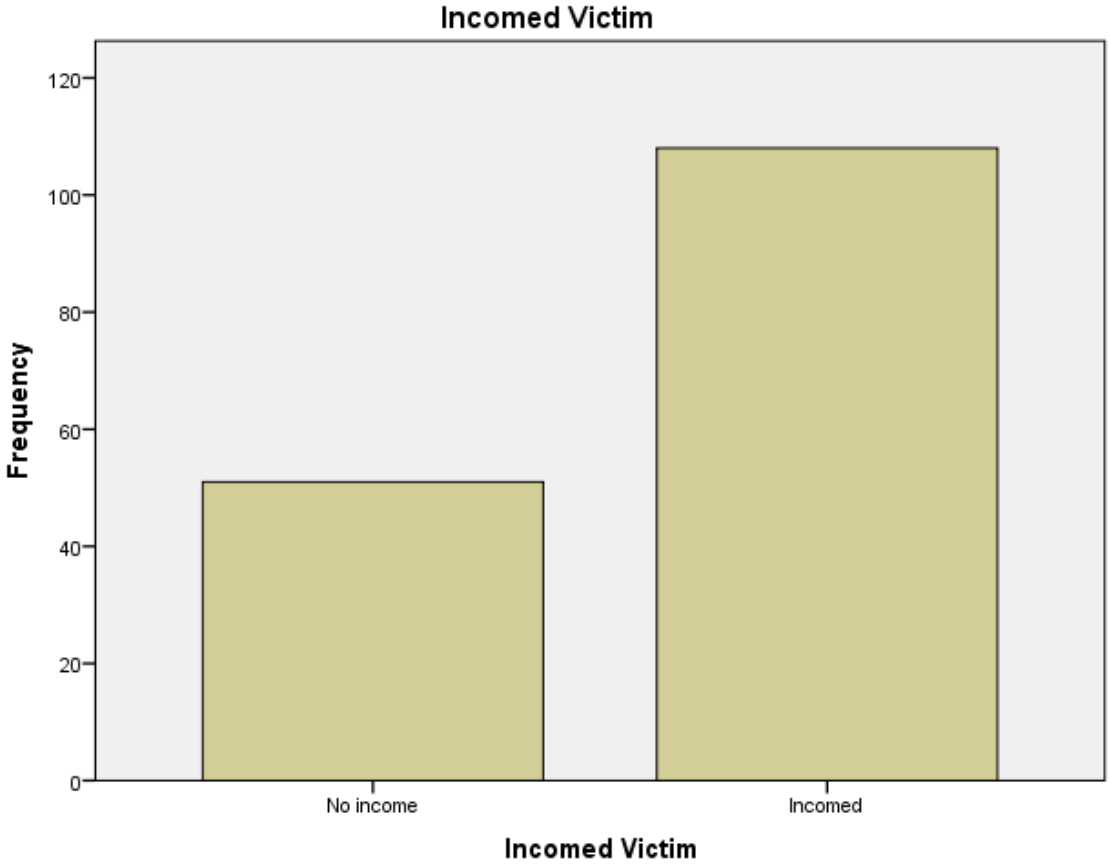


Figure 10: Bar Chart of Victims with Income (N = 166)

## Incident Characteristics.

### *Offender's Weapon.*

The offenders' most frequent weapon of choice was a knife which was used to assault 68 (40.7%) of the victims. The machete was used to assault 17 (10.2%) victims. Together, sharp objects were used against 92 (55.4%) victims. The vast majority (80.0%) of the female offenders used a sharp or piercing object. Female offenders did not use blunt objects or fire. Of the seven offenders that used hot water, six (85.7%) were women. Guns were used against 28 (16.9%) of the victims. For one of the two female offenders that used a gun, the gun was actually owned by the male victim. For eight

(4.8%) of the victims, the offender's weapon was not known. All these latter offenders were male. Table 7 presents the weapons used by the offenders.

Table 7: Weapons used by Offenders to Attack Victims (N = 166)

| Weapon Used by Offender | Offender Sex | | Total | |
|---|---|---|---|---|
| | Male | Female | Frequency | Percent |
| Sharp or Piercing Object | 59 | 32 | 91 | 55.1 |
| Gun | 25 | 2 | 27 | 16.2 |
| Blunt Object | 16 | 0 | 16 | 9.6 |
| Unarmed | 10 | 1 | 11 | 6.6 |
| Hot Water | 1 | 6 | 7 | 4.2 |
| Fire | 4 | 0 | 4 | 2.4 |
| Multiple: Blunt and Sharp Objects | 1 | 0 | 1 | .6 |
| Multiple: Blunt Object and Gun | 1 | 0 | 1 | .6 |
| Missing from Police Report | 8 | 0 | 8 | 4.8 |
| Total | 125 | 41 | 166 | 100.0 |

For the 70 murdered victims, a gun was used for 13 (18.6%) victims while a sharp weapon was used for 49 (70.0%) victims.

***Time of Incident.***

The victimization was fairly evenly distributed across days although there were fewer victims on Tuesdays and Thursdays. The distribution of the victims by weekday is illustrated in Figure 11. There were 118 victims that were assaulted or killed on a weekday and 49 victims on a weekend. For the 70 murdered victims, 49 (70.0%) were killed on a weekday.

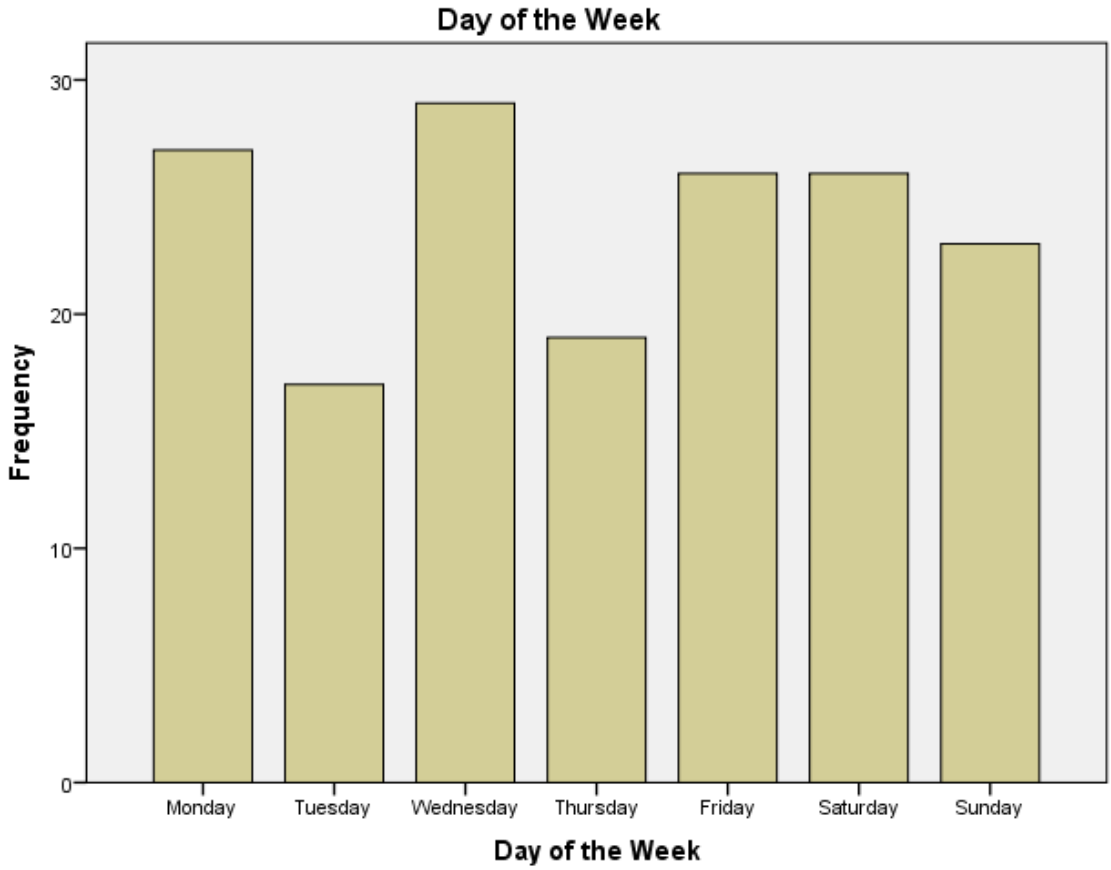


Figure 11: Distribution of IPV Victims by Day of the Week (N =166).

Traditional work hours were defined as Monday through Friday from 6am to 6pm. All other times were defined as traditional home hours. The majority (110, 65.9%) of the victims were attacked during traditional home hours. Likewise, the majority (46; 65.7%) of the murdered victims were killed during traditional home hours. Only 57 (34.1%) of the victims were attacked during traditional work hours.

***Location.***

The vast majority (120; 72.3%) of the victims were attacked in a home, with the greatest proportion occurring in the mutual home (59; 35.5%). For the 70 murdered victims, 52 (74.3%) were killed in the home. One fatal incident occurred at the daycare

center for the couple's minor child. Table 8 shows the type of location where the case occurred.

Table 8: Location Where Victim was Attacked (N = 166)

| Location | Frequency | Percent |
|---|---|---|
| Home | | |
| Mutual Home | 59 | 35.5 |
| Victim's Home | 37 | 22.3 |
| Offender's Home | 22 | 13.3 |
| Home-Unclear | 2 | 1.2 |
| Workplace | | |
| Victim's Workplace | 4 | 2.4 |
| Offender's Workplace | 2 | 1.2 |
| Other Location | | |
| Public Area | 32 | 19.8 |
| Child's School or Daycare | 1 | .6 |
| Car/Bus | 1 | .6 |
| Motel | 1 | .6 |
| Missing from Police Report | | |
| Missing | 5 | 3.0 |
| Total | 166 | 100.0 |

***JCF Area.***

JCF is the sole policing agency in Jamaica, and thus has jurisdiction over the entire island. JCF has 190 constabulary stations. JCF organizes these stations in five areas based on geography and population density: Area I, Area II, Area III, Area IV, and Area V as given in Table 9.

Table 9: JCF Areas

| JCF Area | Geographic Region | Note |
|---|---|---|
| JCF Area I | Hanover, Saint James, Trelawny, Westmoreland | Includes Montego Bay, Jamaica's second city |
| JCF Area II | Portland, Saint Ann, Saint Mary | |
| JCF Area III | Clarendon, Manchester, Saint Elizabeth | |
| JCF Area IV | Kingston Central, Kingston Eastern, Kingston Western, Saint Andrew Central, Saint Andrew South | Major metropolitan area |
| JCF Area V | Saint Andrew North, Saint Catherine North, Saint Catherine South, Saint Thomas | Includes metropolitan area of Greater Portmore |

As indicated by Figure 12, the IPV victims were fairly evenly divided among JCF areas. JCF Areas II and III do not include a major metropolitan territory. JCF Area II accounted for the most victims (41; 24.6%). JCF Area IV is the major metropolitan area and has no rural territory. JCF Area IV had 31 (18.6%) victims.

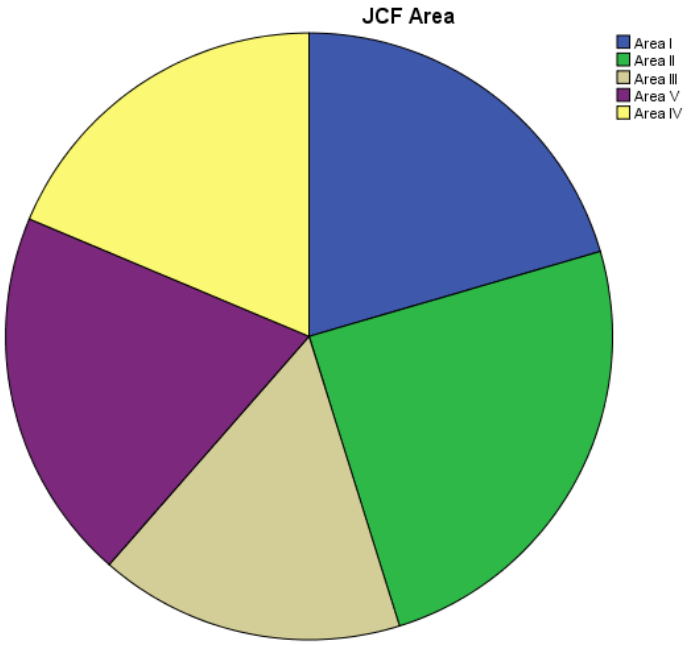


Figure 12: IPV Victimization by JCF Area (N = 166)

# CHAPTER FIVE: QUALITATIVE RESEARCH DESIGN

## Introduction

The dearth of research that addresses the IPV in Jamaica necessitated a heuristic approach. Exploratory methods allow for the identification and greater understanding of hidden phenomena. Using exploratory methods, the qualitative study was done to meet the first two objectives of the study: (a) explore how rivaling theories of IPV are reflected in the 166 narratives of the police reports; and (b) identify established and new risk factors for IPV in the Jamaican context as represented in the 166 narratives of police reports.

## Research Questions

Study Objective 1: Explore how rivaling theories of IPV are reflected in the narratives of the Jamaican police reports.

RQ1.1: How are the rivaling theories reflected in the narratives of the Jamaican police reports?

Study Objective 2: Identify established and new risk factors for IPV in the Jamaican context.

RQ2.1: How are the globally established risk factors of IPV reflected in the narratives of the Jamaican police reports?

RQ2.2: What new risk factors of IPV are found in the narratives of the Jamaican police reports?

## Role of the Researcher

The principal investigator is Jamaican-born, raised, and educated to the tertiary level of education in Jamaica. She remains connected to island extensively through close

familial relationships and philanthropic activities. As such, she is a bicultural Jamaican American with a full understanding of the language and the culture in Jamaica. Having grown up in a culture that condoned IPV and in a nuclear family where IPV was a harsh reality, the principal investigator had to be self-aware and had to critically reflect on any personal biases in performing the content analysis. Avoiding personal biases enhances the methodological rigor and avoids a threat to external validity.

## Grounded Theory

Constructivist grounded theory (Glaser & Strauss, 1967; Guba & Lincoln, 1994) was selected as the foundation of the qualitative aspect of this study. Grounded theory encourages methodologies that seek to understand and explain human experience, such as IPV, in the natural context. The researcher's theories and beliefs are not imposed on the data; nor is the data subjected to the filtration of rigorous hypothesis-testing questions.

## Content Analysis

One of the earliest definitions of content analysis is "any research technique for making inferences by systematically and objectively identifying specified characteristics within the text" (Stone, Dunphy, Smith, & Ogilive, 1966, p. 5). Content analysis is essentially compression of texts into categories based on explicit rules of categorization (Weber, 1990). Riffe, Lacy, and Fico (1998) noted that "…content analysis deals with manifest content, by definition, and makes no claims beyond that" (p. 30). Content analysis has several advantages. The method operates on text, and is therefore unobtrusive and nonreactive, maintaining the context within which the text is found. Additionally, content analysis often allows for the easy and fast acquisition of data. Content analysis was done on the narratives of the Jamaican police reports to explore the

aforementioned research questions. Themes and sub-themes were identified through line-by-line analysis of the data, and then organized as codes. Hennink, Hutter, and Bailey (2011) defined a "code" as "an issue, topic, idea, opinion, etc., that is evident in the data" (p. 216). Multiple coding strategies increase the heuristic value of coding in content analysis (Saldana, 2013). For this study, elaborative coding and focused coding were utilized. Elaborative coding builds on the established themes to uncover support, modify, strengthen, or disconfirm these themes. In other words, elaborative coding verifies what is already expected to exist. Elaborative coding does not look for new themes. By contrast to elaborative coding, focused coding aims to identify the most frequent and salient themes in the data without concern for a priori themes. Focused coding allows for the identification of new themes.

### RQ1.1: How are the rivaling theories reflected in the narratives of the Jamaican police reports?

Using elaborative coding, codes related to the two rivaling perspectives --- routine activities theory and control balance theory --- were used. These codes were derived from the central tenets of the theories. According to routine activities theory, three factors must converge in space and time for crimes to occur: (a) motivated and capable offenders; (b) suitable targets of victimization; and (c) absence of capable formal or informal guardians. Thus, the codes 'vulnerable victim', 'motivated and capable offender', and 'capable guardian' were included. According to control balance theory, the offender uses IPV to maintain or regain control over the victim in an inequitable relationship. Thus, the codes 'control' and 'balance' were included. A guide to the theory-related codes is given in Table 10.

Table 10: Theory-Related Codes

| Code | Explanation |
|---|---|
| Routine Activities Theory | |
| Vulnerable Victim | Statements regarding the vulnerability of the victim temporally and spatially. |
| Motivated and Capable Offender | Statements regarding the motivation and capability of the offender. |
| Capable Guardian | Statements regarding the capability of others, including minor children, to serve as capable guardians. |
| Control Balance Theory | |
| Control | Statements regarding controlling the victim or losing control ; intimidation; emotional abuse; isolation; minimizing, denying, and blaming the victim; using children and pets; using privilege; economic abuse; coercion and threats. |
| Balance | Statements regarding the equity, balance, or superiority. |

**RQ2.1: How are the globally established risk factors of IPV reflected in the narratives of the Jamaican police reports?**

Several of the globally established risk factors for IPV were not included in the dataset; particularly those concerning the offender, such as offender employment and history of IPV. However, these risk factors may be mentioned in the narratives of the police reports. For Research Question 2.1, elaborative coding was be used to find the globally established risk factors of IPV. These globally established risk factors served as the codes. A guide for these codes is given in Table 11.

Table 11: Codes for IPV Risk Factors

| Code | Explanation |
|---|---|
| Sex | Statements addressing sex of the victim or offender. |
| Age | Statements addressing age of the victim or offender. |
| Education | Statements regarding education of the victim or offender. |
| Marital Status and Cohabitation | Statements addressing marital status (legal marriage, common law marriage, dating) including the length of the relationship and cohabitation. |
| Estrangement | Statements regarding separation or divorce or breaking up. |
| Minor Children | Statements regarding minor children or pregnancy, and whether children were witnesses to the incident. |
| Alcohol and Substance Abuse | Statements regarding the role of alcohol, marijuana, or other illicit substances. |
| History of IPV | Statements regarding history of IPV, including sexual violence, between the couple or with other partners. |
| Urbanization | Statements regarding the urbanity of the location; the type of location (such as mutual home); the proximity of the location to resources (such as a hospital) or to others. |
| Employment and Income | Statements regarding employment, income, and poverty of the victim or offender. |

### RQ2.2: What new risk factors of IPV are found in the narratives of the Jamaican police reports?

For Research Question 2.2, focused coding was used to identify risk factors for IPV in the Jamaican context that were not previously identified or explored in this study. Newly identified risk factors or correlates were included in the quantitative analysis.

## Data Analysis Tool

For all analyses, data analysis was done using ATLAS.ti Version 8.4 (Scientific Software Development, 2019).

# CHAPTER SIX: QUALITATIVE RESULTS

## Introduction

IPV is an under-researched topic in Jamaica and so a heuristic approach was needed. Tracy (2010) proposed that good qualitative research should have a relevant and timely topic and thus make a significant contribution to policing policy. Given the large gap in the literature on the IPV in developing nations, and the wretched plight of the victims, this study is timely and crucial. The qualitative portion of this study encompassed exploratory content analysis of the narratives of 166 Jamaican police reports. The de-identified narratives are provided in Appendix C. These narratives were used to meet the study objectives and to inform the research questions as below:

Study Objective 1: Explore how rivaling theories of IPV are reflected in the narratives of the Jamaican police reports.

RQ1.1: How are the rivaling theories reflected in the narratives of the Jamaican police reports?

Study Objective 2: Identify established and new risk factors for IPV in the Jamaican context.

RQ2.1: How are the globally established risk factors of IPV reflected in the narratives of the Jamaican police reports?

RQ2.2: What new risk factors of IPV are found in the narratives of the Jamaican police reports?

## The Narratives

There was immense variability in the length of the narratives and depth of information provided in these narratives. The word count of the de-identified narratives ranged from 27 words to 320 words. The mean number of words was 75. Figure 13 is a line graph of the word count of the de-identified narratives.

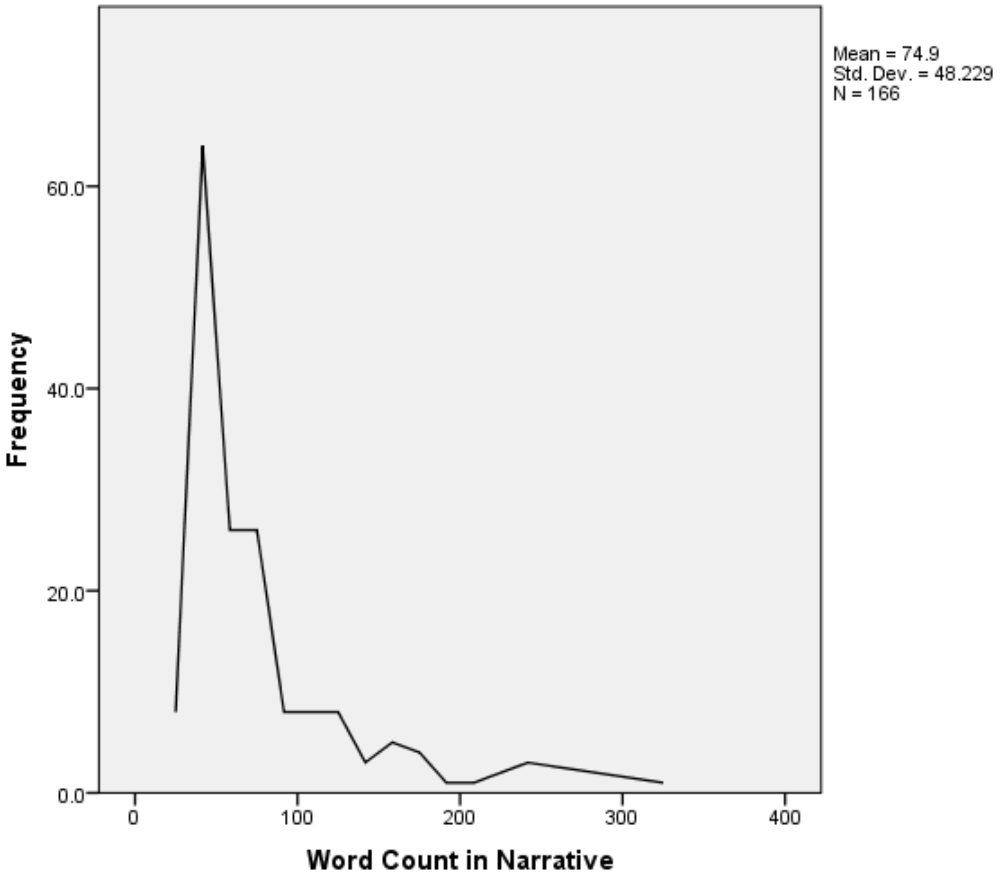


Figure 13: Line Graph of the Word Count of the De-Identified Narratives (N = 166)

The shortest de-identified narrative was:

> *"During a dispute suspect who is the husband of the complainant used a blunt object to hit her on her right arm causing same to be broken."* (27 words).

The longest de-identified narrative was:

*“From information received from victim's mother Mary heard a loud explosion in the early hours of the morning sounding like gunshot. Shortly after (Constable) John who is attached to the [Police Station] called Mary and told her that her daughter who is the now deceased was shot and injured outside. It is alleged that Mary went outside and joined John where she saw the body of her daughter who is the spouse of John lying on the road way. John then went into his Black Nissan B12 motor car and drove off. Whilst Mary went back inside the house and alerted other family members. About 4:00am later the same morning Mary's son Michael was coming from work when seeing the body of his sister lying along the road way. Upon seeing the body of his sister he went to the [Police Station] where he made a report. Upon the arrival of the police the body of the now deceased was seeing lying on its back in a pool of blood with appears to be a single gunshot wound to the forehead clad in a blue blouse and pink towel wrapped on the lower half of her body. The scene was processed. The following exhibits were retrieved from the scene: one 9mm spent casing and blood samples. The body of the now deceased was pronounced dead at the [Hospital] by [Doctor] at 9:25am. The body was then handed over to [Funeral Home] for storage pending post mortem. During this period enquiries were made for [John] and several phone calls made to his cell phone which prove futile. Information received is that [John] was found in his car suffering from gunshot wound to his head in the community of [Town] in the Parish of St. Mary by citizens. He was rushed to the [Hospital] where he received treatment and later succumbed to his injuries. He was pronounced dead by [Doctor] at 7:54am.”* (320 words).

Due to the brevity of some narratives, only a few codes were applied to them. The absence of a code does not mean that the phenomenon was not existent in that actual incident. Rather, the absence only means that the researcher may not have been able to apply the code based on the limited information in the narrative. No attempt was made to correct the improper grammar or spelling found in the narratives. Although improper grammar is a pet peeve of the researcher, these issues in the narratives were overlooked and did not impact coding.

### RQ1.1: How are the rivaling theories reflected in the narratives of the Jamaican police reports?

The first objective of this study was to explore how routine activities theory and control balance theory were reflected in the narratives of the Jamaican police reports. To do so, focused coding of the narratives was done. The a priori codes were previously identified in Table 10. From a routine activities perspective, for IPV to occur, there needs to be a geospatial convergence of a motivated offender and a vulnerable victim in the absence of a capable guardian. Statements about the vulnerability of the victim, the motivation and capability of the offender, and the capability of others to provide guardianship were indicative of routine activities theory. From control balance theory, IPV offenders use tactics (such as the behaviors in the Duluth power and control wheel and IPV) to exert, maintain, and regain control over their partners. Statements regarding control or losing control of the victim and statements about equity, balance, or superiority in the relationship were indicative of control balance theory. Statements indicative of the categories of behaviors in the Duluth power and control wheel are also indicative of control balance theory.

***Routine Arguments about Control.***

The majority of the narratives indicated that the IPV had escalated from routine arguments or household disputes between the couple as they went about their daily lives. Prima facie, these narratives lend support for routine activities theory.

> *"Complainant and suspect who is a common-law couple, had a dispute which resulted into a fight…"*
>
> *"Victim and accuse shared a common law relationship has a long standing dispute, they had an heated argument that resulted in a fight."*
>
> *"Accused and victim who is his common-law wife had a domestic argument which turned into a physical fight…"*

While the routine arguments that escalated to violence seem to support a routine activities perspective, a theme of control becomes evident when the topics of the aforementioned arguments were explored. Figure 14 presents the in vivo topics of the arguments. Most often, the topic of the arguments was not disclosed in the police reports. When disclosed, the topics often involved the offenders attempting to control the victims and force the victim to cede to their wishes. Consistent with the Duluth power and control wheel's category of using children to exert control, arguments ensued about control over minor children.

> *"Complainant and suspect who is her baby father had a dispute and the suspect wanting to take their child away from its mother..."*

Victims were often dependent on offenders for monetary support, especially for raising minor children. As such, consistent with the economic abuse relayed in the Duluth power and control wheel, arguments ensued over money.

*"Complainant went to the home of the accused who is he child's father for money, when an argument developed which turn physical."*

*"During an argument between the complainant and the accused over monies for their daughter."*

*"Complainant went to her baby's father John … for money for their son two years of age, when an argument developed between them."*

*"John warned the victim that if she does not want him, she must not take his money."*

Arguments ensued over control of the victim's possessions or the couple's possessions, particularly cellular phones. For the poorer citizens in Jamaica, the cellular phone is often the most monetarily valuable possession. For IPV victims, cell phones are means to call for help monetarily or for help to escape danger.

*"Complainant was inside the kitchen talking on her cellular phone when her husband the accused came up to her and accused her of talking to a man".*

*"An argument developed between them over cell phone."*

*"Deceased and common law husband had a dispute about she having another relationship. He took her phone and an argument escalated…"*

As the last excerpt revealed, arguments ensued as offenders acted entitled and attempted to control the sexual aspect of the relationship and often questioned the victim's fidelity.

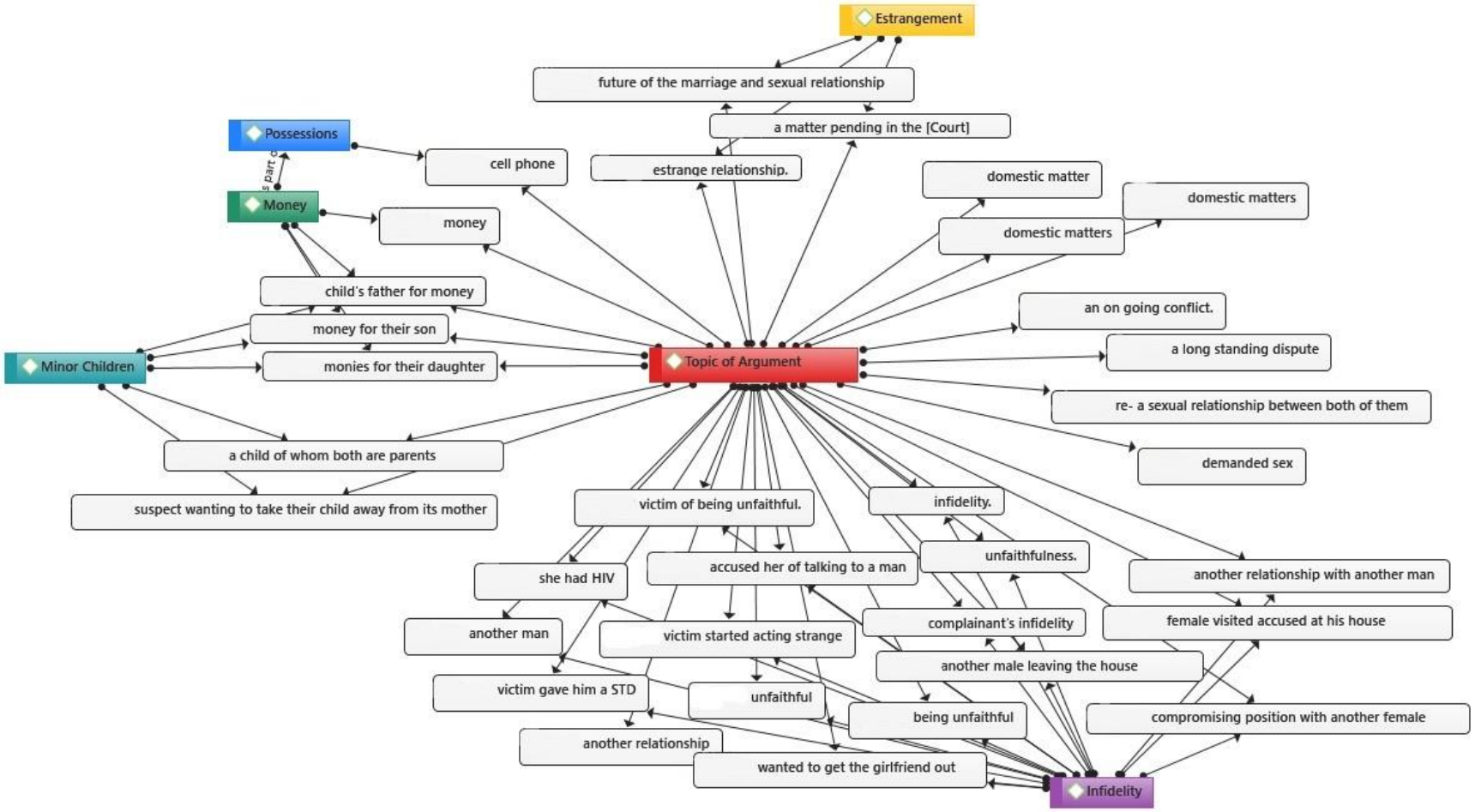


Figure 14: Topics of Arguments (N = 34)

Offenders were enraged and attacked the victims when their sexual demands were not met. Infidelity is discussed further later.

*"…accused came to the house and demanded sex from the complainant…"*

***Motivated and Capable Offender, Vulnerable Victim, Capable Guardian.***

This convergence is evident in several narratives where the victim was attacked in the home, alone in the street, or other location where there was no capable guardian.

*"Accused went to the complainant's house entered through a window and used a machete to inflict a wound to her head."*

*"Accused and complainant shared a common law relationship, when both had a dispute earlier in the day. Whilst the complainant was asleep the accused used a knife to stab the complainant in the chest causing a wound that bled."*

But, in conflict with routine activities theory, offenders also attacked victims in places where many capable guardians must have been present; such as bars, shopping malls, and gas stations. Despite the presence of other parties who could act as capable guardians, offenders also committed burglaries or house-breakings to get to estranged victims. In four instances, the other party in the home was a new male lover of the female victim. In another narrative, the other party in the home was the victim's mother. For attacks where new lovers were present, the offender acted when the parties should have been asleep and directed his attack at both persons. As such, rather than a capable guardian, the new lover can instead be viewed as another vulnerable victim. These actions may be indicative of an offender who is angered by the loss of control over the victim.

*"Both complainants (Joe and Jane) shared an intimate relationship and was lying in bed when the accused (John) who is a past lover of Jane kicked open a side door and opened gunfire at the couple, then escaped on foot in the area."*

*"Victims who are a couple was at home sleeping when suspect who is the father of Jane's child, forced open the kitchen window to house. He entered the house and fired shots hitting Jane in the head and also hitting her boyfriend Joe in the head, shoulder, hands and thighs."*

Given the role of capable guardians in routine activities theory, motivated offenders would seek to isolate their victims. The CDC (2017) identified isolation as a risk factor for IPV. From a few of the narratives, the offender isolated the victim situationally by threat or deceit in order to commit the IPV. But, in a broader sense, isolation includes relocating the victim away from family thereby limiting the possibility of capable guardians and perhaps increasing the offender's control surplus of the couple's resources. But isolation did not emerge as a theme in the Jamaican context. In many of the narratives, IPV victims were in close proximity to family and community members who could (and often did) act as capable guardians to intervene or to assist the victim after the IPV. In both Jamaica's urban and rural areas, private homes are in close proximity due to scarcity and high cost of land. In rural areas that have few planned housing schemes, extended families build their homes on large family-owned lots in order to pool resources and share in child rearing. In both urban and rural regions, growing extended families may make additions to family homes. Jamaicans term these plots which house many families as 'big yards'. It is thus not surprising that IPV victims were not far from familial or neighborly support.

*"Victim was at home with her 2 years old son and grandmother when suspect came there, where an argument developed between both parties and the grandmother intervened."*

"*Reports are Jane had gone next door to her sister's house, Martha, whilst she was there John came by and an argument developed between them during which he pulled a firearm and fired several shots hitting her."*

*"... victim's mother Martha heard a loud explosion in the early hours of the morning sounding like gunshot. Shortly after.. John ...called Martha and told her that her daughter who is the now deceased was shot and injured outside. ... Martha went outside and joined John where she saw the body of her daughter who is the spouse of John lying on the road way. ... Martha went back inside the house and alerted other family members. About 4:00am later the same morning Martha's son Tim was coming from work when seeing the body of his sister lying along the road way."*

Community members also acted as capable guardians for the victims, including attempting to accost the offenders, and to help the victims after the IPV.

*"Both complainant and accused were at home when neighbour reportedly hearing a strange sound and screaming coming from the house. Citizens later went and made checks and discovered the body of Jane..."*

*"Men working next door reportedly heard loud screams coming from the house and shortly after saw smoke coming from the house. They went to check and force themselves into the house where they attempted to put out the fire. Whilst they*

*were putting out the fire they found the body of victim wrapped in a sheet under a mattress."*

*"Victim was stabbed on the right side of her neck whilst she was sitting in a minibus by the accused who happens to be her child's father. … Accused was held and beaten by an angry mob and was later rescued by the police."*

*"He pulled a knife and inflicted several stab wounds all over her body and left her along the roadway. A passing motorist took her to the [Hospital]…"*

Several capable guardians were also hurt or killed by the offender: four new intimate partners, one constable, four strangers, three siblings of the victims, one older child of the couple, and one person whose relationship to the dyad is unclear.

*"Ted who is a watchman on the mall along with Bob went to the assistance of Jane when the suspect used the said knife to inflict wounds to Ted's abdomen and chest and Bob to his chest. All four victims were taken to the [Hospital] where Jane and Bob were pronounced dead, while Ted and Mary were treated and released and suspect was transferred to the [Hospital]."*

*"The complainant (Jane) then made an alarm and her new boyfriend (Joe) who was visiting her was also attacked where he too was stabbed all over his body."*

While the narratives indicated that family, neighbors, and community members responded to cries for help or intervened in attacks, there seemed to be a delay in the responsiveness. Rather than "*immediately*", responses came *"later"* or "*shortly after"*. The apparent delayed responsiveness could be a function of the writing style of the constables. By contrast, in a culture where IPV is condoned in certain circumstances or is regarded as a private matter, this delayed responsiveness may not be surprising. Jamaican

citizens may choose to ignore IPV in its milder forms and may only choose to intervene if there is risk of grave harm or death.

Routine activities theory assumes that offenders are motivated. Arguably, IPV offenders are motivated to use IPV as a tool to control their partners. As such, arguments that escalate to violence (as discussed above) are still actions of motivated offenders rather than actions of partners who had temporary lapse in judgment. The motivation of IPV offenders may best be demonstrated in calculated predatory acts of violence against the victims.

> *"Effected by John and his wife Jane were both at home when John got up to go to Kingston to fulfil an appointment at the hospital and shortly before leaving out he used a piece of iron pipe to hit his wife several times on her head killing her on the spot. He then left to Kingston to fulfil his appointment and returned home about 3:30pm where he made an alarm that his wife was killed."*
>
> *"Now deceased and the suspect shared a intimate relationship which had ended when complainant went to a nearby shop and was on her way home when suspect who was hiding behind a concrete structure unfinished building attacked her with a machete and chopped her several times all over her body to include her head, her hands, her legs, her back and her abdomen."*

***Other Acts of Control.***

***Partner's Possessions***

As previously discussed, routine arguments were often about control of the victim's or the couple's possessions. After the relationship ended, estranged offenders

still tried to control or destroy the victims' possessions. Additionally, property damage was graver if the couple was estranged.

> *"John fired two more shots and drove away with her car a Toyota verossa with $185,000jmd on board and a Samsung galaxy cell phone valued at $50,000jmd."*
>
> *"Suspect … robbed her of property".*
>
> *"During a domestic dispute at complainants house, the suspect who is his baby mother used a knife to stab him to the left side of his chest causing a very serious wound that bled. She also used the knife to cut up his living room sofas."*

Apparently frustrated by loss of control of the victim, one offender did serious damage to the car of the victim's brother as retaliation for protecting the victim.

> *"The accused then left from inside the house, went to the gate where Michael's motor car was parked, used a handgun to fire four shots, two damaging the widescreen and the left front fender of Michael's car."*

***Partner's Whereabouts***

IPV offenders also attempt to control where their partners can go. One offender acted entitled to knowing the whereabouts of estranged partner.

> *"…suspect asked deceased where she was coming from and deceased responded by telling the suspect he cant asked her that because they are no longer together. Suspect then brandish a machete and decease ran off the suspect chase decease and caught up with her and inflict several chop wounds to her body."*

***Threats***

Offenders used threats to exert control over the victims and to deter victims from reporting IPV to the police.

*"She was not injured however the accuse man threatened to kill her as it was reported."*

*"Jane and accused was involved in a intimate relationship. Jane ended the relationship and returned to her mother's house. Accused threatened to kill Jane if she did not return to his house."*

**RQ2.1: How are the globally established risk factors of IPV reflected in the narratives of the Jamaican police reports?**

The WHO (2010) has identified risk factors for IPV globally; including being female, age under 30, lower education, being married and cohabiting, alcohol and substance abuse by either partner, residing in a rural area, being estranged, and a history of IPV of either partner. To meet objective of this study to explore these globally established risk factors for IPV in the Jamaican context, focused coding of the narratives was done. As previously detailed in Table 11, the a priori codes were the globally established risk factors for IPV. Figure 15 presents how the frequency of these codes in the narratives.

***Sex.***

In the dataset, there were 124 female victims and 42 male victims. The narratives always indicated the sex of the victim and of the offender. As such, the code of sex was not applied to all 166 narratives simply for sex identification. Further discussion of the sex of the victims was absent in the narratives, except in noting the same-sex relationship involving two men. All other couples were heterosexual. The subthemes of offender weapon, offender suicide, and sexual intercourse also emerged from the data. For these subthemes, there appeared to be gendered patterns.

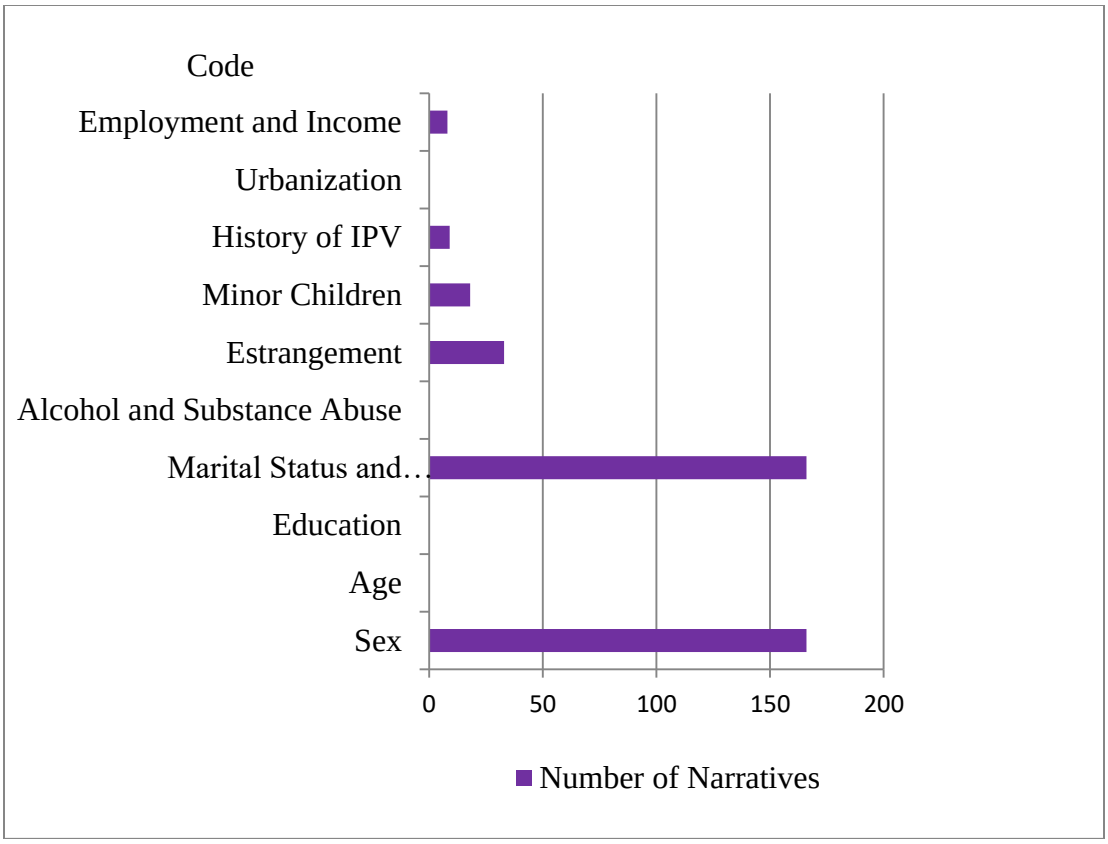

Figure 15: Number of Narratives by Code (N = 166)

***Offender Weapon***

The weapon used by the offender was included as a column in the dataset. When multiple weapons were involved, the constables apparently listed the most dangerous weapon. The quantitative analysis included variables addressing the weapon used by the offender as predictors. The content analysis offered additional information about these weapons. Offenders used a myriad of weapons to attack the victims; including guns, knives, machetes, fire, and blunt objects.

<u>Sharp or Piercing Object</u>

Both male and female offenders used sharp or piercing objects; including knives, machetes, screwdrivers, a fork, a pair of scissors, a fish gun (spear), and a broken bottle.

The knife was the most frequently used weapon by female offenders. When a sharp or piercing weapon was used, the narratives indicated that the offender usually inflicted multiple stabs or slashed the throat of the victims. Victims were stabbed in their necks, chest, spine, legs, hands, and other body parts.

*"The complainant (Jane) was then attacked by the accused who was armed with a kitchen knife by stabbing her all over her body."*

*"…suspect used a knife to stab her in the region of her spine…"*

*"The accused man stabbed the complainant to her side causing her intestine to protrude."*

*"…the accuse used a knife to stab the complainant several in the chest puncturing one of her lungs."*

*"…accused used a knife to slash complainant throat …"*

*"…suspect used a dinner fork to inflict a stab wound in victim's throat."*

*"The accused then took up a machete from behind a gas stove, he then used it to chop the complainant."*

*"The suspect who is complainant wife use a machete to chop complainant to the left section of his head and his left shoulder causing a wound which bled."*

*"…accused used a Guinness beer bottle to inflict damage to the left eye of the complainant resulting in the permanent loss of sight in that same eye."*

Gun

A gun was used by the offender in 27 of the narratives. All but two of these offenders were male. One female offender used a gun belonged to the victim who was a JCF constable.

*"Complainant was at the home of the accused with whom he share an intimate relationship, when he took his loaded Browning service pistol loaded with fourteen (14) 9mm rounds from his pants waist, cleared the weapon and placed it under his pillow. The accused then picked up the weapon, loaded a round in the chamber and shot the complainant in his chest."*

In the majority of the narratives, the gun was discharged with the clear intent to injure the victim.

*"…argument developed during which the accused pulled his license firearm and fired two shots that hit the complainant in her face."*

*"Both the complainant and the suspect who are in a common law relationship had a dispute that escalated into a fight during which the suspect pulled a handgun from his waistband that he fired at complainant several times."*

*"Both the complainant and the suspect who are in a common law relationship had a dispute that escalated into a fight during which the suspect pulled a handgun from his waistband that he fired at complainant several times."*

*"Complainant who is the ex-girlfriend of suspect, had a dispute during which he pulled a gun and fired shots in her direction, hitting her on the left thigh."*

*"…the complainant was at home when she was attacked by the accused who is her husband who resides with her and was shot several time in the neck, shoulder, hand and back with a CBC .22 rifle."*

But male offenders also used the gun as a blunt object or a demonstration of power without intent to shoot the victims. In Jamaica, this is called "*gun butting*". Regardless, in the narratives the female victims appeared extremely fearful.

*"During the dispute suspect brandished his license glock 9mm pistol and allegedly used same to hit complainant on the right side of her face and discharged two (2) rounds over the head of Jane."*

*"John pulled out a firearm and fired one shot in the air. Jane who was in fear of her life ran around the corner of the shop an jumped in the river in a bid to escape."*

*"Suspect then pointed the gun at the female complainant, robbed her of property and used the gun to hit her twice in the back and also slapped her several times in the face with his hand. Complainant was not injured."*

In the last narrative, the constable's statement that the victim received no injury discounts the inexorable bruises that must have resulted from being hit with a gun.

For all but two of the IPV murder-suicides, the offender used a gun. These are discussed further later.

Blunt Object

Only male offenders used blunt objects to attack the victims. Often, these objects were household items or yard items that were readily grabbed in a fight. Blunt objects included stones, sticks, boards, scrap iron, and pipes.

*"Both parties are involved in a common law relationship. They had a dispute which result in the suspect using a piece of board to hit the complainant several times in her head causing a wound which bled profusely."*

*"The complainant and her common law husband, the accused, were having a dispute during which the accused used a piece of board to hit the complainant on her left arm causing it to break."*

Fire

Only male offenders used fire in their attacks. Some male offenders used fire as a weapon with the clear intention to kill or severely injure the victims by burning her alive.

*"…poured gasoline on her and place tyres on her… then lit her on fire…"*

*"…her common law husband came with a jug of gasoline which he poured on her then set her ablaze causing severe burns to her body…"*

*" …when accused pounced upon her and threw a liquid substance which appeared to be gasoline on her. He then made several attempts to light her on fire, but she managed to run."*

In two narratives, fire was used to attack the victim and also destroy her possessions.

*"Complainant was at her 6 apartment board house valued 1.7 million when the suspect who is her common law husband came with a jug of gasoline which he poured on her then set her ablaze causing severe burns to her body, the house was totally destroyed along with the contents."*

While not used as the weapon to hurt the victim, fire was also used to damage the property of the victim or to cover up the crime.

*"John used a piece of board to hit Jane to the head. John then took the children next door before setting the house a blaze with Jane's body inside."*

*"Jane was pushed by John who fell to the ground hitting her head rendering her unconscious. John then wrapped her into a towel and placed her on the back seat of his motor car and took her to a wooded area of [Location], he then set her body ablaze."*

Hot Water

Six female offenders and one male offender used hot water to injure the victims. Hot water is the only weapon that was favored more by female offenders than by male offenders. Hot water was a readily accessible weapon in the kitchens. Hot water was the least potent weapon.

*"Complainant was at home with his common law wife who was in the kitchen boiling water. He went to turn off the stove and the suspect threw the pot of water on his back. He turn around and she threw the remaining water on his body causing injury to his chest and face."*

*"On [Date] both had an argument during which the accused went and set a pot with water on the stove. When the water boiled she threw it on the complainant causing severe burns to his face, neck and his upper body."*

***Offender Suicide***

A few offenders were their own victims as they committed suicide. The narratives revealed that, after attacking the victims, 11 of the offenders committed suicide. [Note that there is a 12th male offender who committed suicide using a knife as reported in the local newspaper (Mundle, 2016). However, this suicide was not stated in the police report narrative]. Offender suicide was not included as a covariate in the quantitative analysis. All the offenders were male and all the victims were female. As both victim and offender were deceased, three narratives were very short and lacking information. As such, coding was limited.

*"On the given day, date and time, relatives of the victims went to check on them, having not heard or seen them throughout the day. the relative on making*

*enquiries acquired a duplicate key to the premises, and made further enquires, where the lifeless was found."*

Ten of the offenders killed themselves immediately after killing the victim. For eight of these ten victims, the offender used a gun to kill the victim and then kill himself. Two of the offenders were JCF constables, one was a Sergeant with in the national army, (Jamaica Defence Force, JDF), and one was a private security guard. Another two offenders were licensed firearm holders, but their occupations were not reported in the narratives. One victim was a female constable whose lover killed her with her own gun and then killed himself.

*"John took possession of Jane's service pistol and shot her three (3) times whilst she was asleep then shot himself."*

Another offender killed his common-law wife, then set the home afire and perhaps deliberately allowed himself to be killed in the flames also. The last offender did not kill but severely injured the victim using a ratchet knife. He did not kill himself immediately after attacking the victim. Rather, he was attempting to flee the area when he was accosted by citizens. On being accosted, he fatally stabbed himself in the chest.

***Sexual Intercourse***

Sexual intercourse was featured in nine of the narratives. All the victims in these narratives were female. Three women were willing sexual partners. As an unfortunate parody to the volatile and mercurial love-hate nature of IPV relationships, the IPV closely followed the sexual act.

*"Accuse went the home of the victim where they had sexual intercourse. A dispute developed after, during which the accuse strangled the victim then kicked her off the bed."*

*"…complainant went to satisfy her boyfriend while he was selling in front of the mentioned location. While staying there the complainant told the accused that she was going home because the event was finished. An argument then develop between the two. The accused used a stone to hit the complainant on the left elbow…"*

*"Complainant received a call from a private number to meet a friend name [Joe] at [Motel] when she got there and went to room 13 she saw her husband they had sex after which an argument developed when he used … a knife to stab her…"*

In the preceding narrative, the reporting constable noted the room number (13) in the narrative. Within Jamaican folklore which is highly superstitious, the number 13 is strongly associated with bad omen and so associations with that number are actively and painstakingly avoided. The motel was a sordid location known for use by street prostitutes and unbecoming for respectable wives. The husband's selection of this room number in this location signaled his baleful intent to punish her infidelity.

According to Jamaica's Sexual Offences Act (2011), attempts to rape or sexually assault are not prosecutable. Additionally, marital rape is only prosecutable if the couple is legally estranged or the husband has an undisclosed sexually transmitted disease. Two victims were attacked due to refusing to have sexual intercourse with the offender.

*"The complainant was on her way home when the accused man, who is her ex boyfriend asked her if he could spend the night with her. She refused and the accused pulled a knife and stabbed her…"*

As this victim was not actually raped, assaulted, or abducted, this incident would not be covered under the Sexual Offences Act.

*"Effected when complainant was at a friend's house which she is the caretaker for, when accused came to the house and demanded sex from the complainant who is his wife and a dispute developed and accused used a knife to slash complainant throat…"*

For the latter case, there was no sexual assault reported in the narrative. Still, under the Sexual Offences Act, as the wife was not legally estranged from the offender, any sexual assault would not have been recognized as a crime.

Three victims were sexually assaulted. All of these victims were estranged from the offenders at the time of the sexual assaults.

*"… victim was at home when the accused took a propane cylinder to the location, whilst there he pushed her from the bed and the fell to the floor, damaging her spinal cord, then he sexually assaulted her against her will…"*

*"Accused entered the house of the complainant while she sleep in bed dressed only in panties where he demanded sex. When his demand was not met he tried forcing himself on her, she resisted him. Accused then held her down on the bed and began to hit her all over her body while trying to open her legs. Complainant continued to resist and he used a screw driver to stab her underneath her foot bottom causing a wound which bled."*

*"Complainant was at suspect's house and packed her clothes to leave when suspect came home and saw her. He then went for a big piece of stick and started hitting her on her hands resulting in her left arm being broken. Suspect also had sexual intercourse with complainant against her will."*

***Marital Status and Cohabitation.***

Almost every narrative noted the victim's relationships to the offender. Some narratives also noted if the couple cohabited and if the couple was estranged (discussed later). From the narratives, when the couples cohabited, the home appeared to belong to the male partner. This inequity in home ownership was apparent even when the couple was legally married. If the relationship ended, the female partner needed to find a new home. This finding seems inconsistent with trends in the United States where the male partner may more often leave the mutual home in the event of relationship dissolution. This suggests another gendered pattern in the narratives.

*"Complainant has been married to the accused for over 20 years, he told her to move out her belongings as he does not want her there anymore."*

***Estrangement.***

Estrangement was a prominent theme in the narratives. Contact between estranged partners often occurred due to minor children (discussed later). Estranged partners suffered brutal and often fatal attacks, most often within the initial stages of estrangement.

*"Complainant has been married to the accused for over 20 years, he told her to move out her belongings as he does not want her there anymore. The complainant*

*was in the process of packing and moving her stuff when the accused used a knife to slash her throat."*

*"Complainant and suspect who are a married couple had a dispute about the future of the marriage and sexual relationship, during which complainant told suspect that the marriage is over. Suspect then pulled a knife and used same to inflict stab wounds to complainant's neck and back."*

*"Complainant went to her ex-boyfriend's house to collect her clothes when she was attacked by him who used a piece of broad to beat her and broke her left hand."*

The exception is one couple that was estranged for over five years when the female offender fatally assaulted her husband after visiting him at his new home and meeting his pregnant girlfriend.

***Additional Crimes against Victims***

A subtheme of estrangement that emerged from the narratives was additional crimes. In conjunction with the IPV, the narratives told that offenders also committed or attempted to commit additional criminal acts against their estranged partners. Two estranged victims were also sexually assaulted. Two estranged victims were also forcibly abducted. The homes of three estranged victims were also burglarized. Two estranged victims were also robbed. Estranged lovers were also responsible for two arsons of the victims' properties (as distinct from using fire as a weapon to attempt to kill or severely maim the victim). Figure 16 provides a depiction of the additional criminal actions committed by the IPV offenders against the estranged victims.

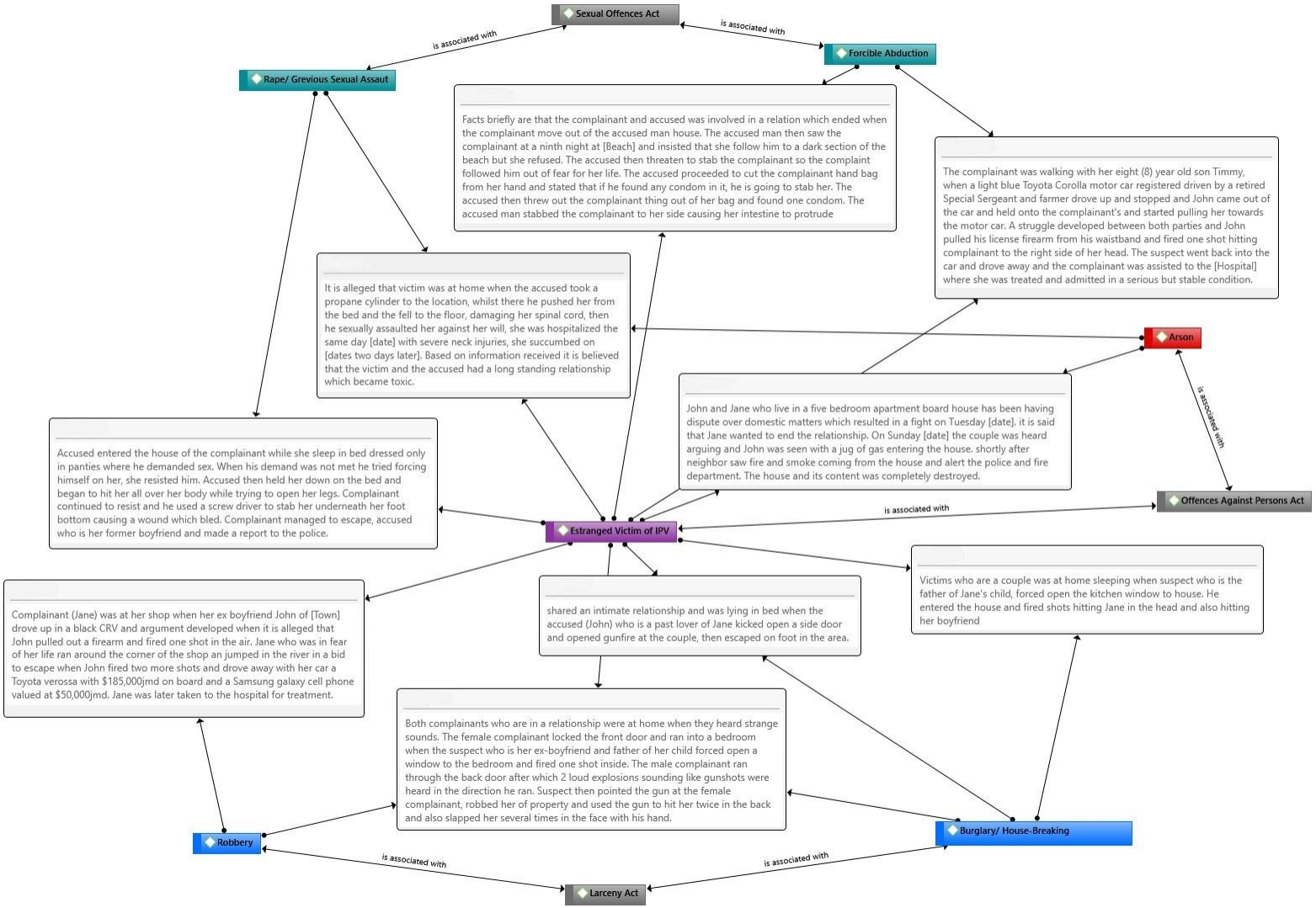


Figure 16: Additional Criminal Acts against Estranged IPV Victims (N = 9)

***Minor Children.***

Many of the couples shared minor children. As previously discussed, some altercations occurred during interactions regarding support (in the form of money or groceries) for the children or due to allowing parental visitation.

> *"During an argument between the complainant and the accused over monies for their daughter. Accuse man reportedly pushed the complainant to the ground causing her to hit the lower section of her right hand which resulted in swelling and also pain."*

For children, the deleterious effects of witnessing IPV have been well-established in the literature (Wathen & MacMillan, 2013). In addition to being traumatic, children's witnessing of IPV allows for the intergenerational transmission of the justifications for IPV and the modeling of IPV behaviors (Williams, 2001). While the narratives did not explicitly state that the minor children witnessed the IPV, such is highly probably especially when the IPV occurred in the mutual home.

> *"Suspect (John) went to [Mall] to pick up his son from his child's mother (Jane). An argument developed between them, during which the suspect pulled a knife from his waistband which he used to stab her to the abdomen and chest."*
>
> *"Facts are accused came home and saw his daughter with a camera taking pictures of her mother who was naked at the time an argument develop between accused and complainant when accused used a broom to hit complainant on the left hand causing it to brake."*

*"Victim (Jane) was at home with her 17 year old son and her one year old daughter when she was visited by the younger child's father (constable) John. An argument developed between Jane and John and it became physical…"*

*"The complainant was walking with her eight (8) year old son Timmy, when a light blue Toyota Corolla motor car registered driven by a retired Special Sergeant and farmer drove up and stopped and John came out of the car and held onto the complainant's and started pulling her towards the motor car. A struggle developed between both parties and John pulled his license firearm from his waistband and fired one shot hitting complainant to the right side of her head."*

Although also not mentioned in the narrative, it is plausible that many children (including the couple's child) witnessed the IPV murder-suicide which happened at a daycare center. Thus, the deleterious effects of IPV for children could extend to unrelated children in the community.

*"Jane went to pick up their son at the [Daycare Center] when it is alleged that an argument developed between she and John who pulled his licensed pistol from his waistband and fired several shots hitting Jane to the face, back and left palm. John then placed the firearm to the right side of his head and fired a single shot killing himself."*

From one narrative, the couple's child had to act as a capable guardian for his mother while narrowly escaping harm himself. The narrative did not disclose the age of the child.

*"…the accused pulled his license firearm and fired two shots that hit the complainant in her face. The son of both complainant and accused came out of his room and was about to approach his father with the gun when he pointed*

*same at him and fired a shot in his direction. The son however managed to disarm the gun from his father and then he took his mother to the hospital".*

In juxtaposition, while inflicting grave harm to their mothers, offenders often acted responsibly, protective, and even caring for the minor children.

*"John then took the children next door before setting the house a blaze with Jane's body inside."*

*"Effected when the accused (John) who is the complainant's baby father went to deliver groceries for his daughter…"*

*"Complainant went to visit his children, during which an argument developed which turned into a fight."*

***History of IPV.***

The narratives generally did not speak about the history of IPV of the couple, but a few did. One narrative mentioned that the couple regularly fought.

"*From information received the decease lived in a one bedroom house with her common law husband John. It is alleged that both parties argued and fight regularly."*

Three narratives mentioned previous IPV had occurred a few days prior.

"*John and Jane who live in a five bedroom apartment board house has been having dispute over domestic matters which resulted in a fight on Tuesday [Date]."*

*"After a relationship ended between accused and complainant, on the [Date] the accused used a machete to inflict wounds to complainant head and both arms which bled. On the [Date, 6 days later] the accused visited the home of the*

*complainant where he used a knife to inflict wounds to complainant upper back and right arm causing her to be admitted at [Hospital]."*

*"Complainant who is the baby mother of the suspect had an argument with him on the [Date] in which she was physically assaulted by him. On the [Date, 5 days later] she was walking along the mentioned road way when he approached her and an argument developed."*

However, for the preceding narratives, there was never a police report from the earlier date in the dataset. The violence had escalated in the few days leading to more drastic injuries for the two victims in the latter narratives and to murder-suicide for the first narrative. There was one victim who had taken legal recourse, but the narrative did not say if the matter pending before the court was civil (such as a protection order, occupation order, or custodial and support determinations) or criminal. This victim was killed.

*"The victim and the suspect had an affair that went sour and as a result they had a matter pending in the [Court]."*

In four of the narratives, there were threats of violence that preceded the incident. In two of the narratives, these threats were reported to the police.

*"The now deceased attended the [Police Station] earlier before the incident and reported a case of Threat against the suspect whom she had relationship with. The suspect then came to the [Police station] and was warned by the police."*

*"Facts briefly are that the complainant and accused was involved in a relation which ended when the complainant move out of the accused man house. The accused man then saw the complainant at a ninth night at [Beach] and insisted*

*that she follow him to a dark section of the beach but she refused. The accused then threaten to stab the complainant so the complaint followed him out of fear for her life."*

Other narratives mentioned ongoing conflict or disputes between the partners. But the narratives were unclear on whether the conflicts ever manifested into physical fights.

*"Victim and accused were involved in a common law relationship and had been having an on going conflict."*

*"Victim and accuse shared a common law relationship has a long standing dispute".*

*"Accused and complainant shared a common law relationship and have been having several domestic disputes."*

*"Victim and accuse shared and intimate relationship and was having problems for sometime."*

***Employment and Income.***

The focus of this study is the relationships between victim employment and victim income status with IPV in Jamaica. The dataset included a column that gave the victim's reported occupation. The occupation of the offenders was not provided in the dataset. The narratives offered little additional information about the employment of the victim or the offender and no information about their income status. From the narratives, four of the offenders were JCF constables, one was a JDF sergeant, two were armed private security officers, one was a bartender, and one ran a street-side stall. Such stalls normally sell food items.

One couple worked together running a shop in a shopping mall. The IPV occurred at said shop overnight. One victim was attacked by her husband after “her employer” visited her at her home. This victim may have run a business from home as she reported her occupation as “entrepreneur”. Two victims went to the places of work of the offenders, a bar and a street-side stall respectively, and were attacked there. Four additional victims were attacked at their places of work. These victims were a caretaker of a home, a bar owner, a bartender, and a gas station attendant.

***IPV Risk Factors not Prominent in the Narratives.***

***Age***

The age of the victims was included in the dataset. There were no statements in the narratives that specifically addressed the age of the victim or age difference of the victim and the offender. The victim’s age is discussed in depth later in the quantitative analysis.

***Education***

There were no statements in the narratives that specifically addressed the education of the offender or the victim. One narrative noted that the victim was a school principal, indicating a post-secondary level of education. Included in the dataset were the victims’ reported occupations. Eight of the victims reported their occupation as ‘student’. These occupations, which are discussed later in the quantitative analysis, may give some insight on the level of education of the victims.

***Alcohol and Substance Abuse***

Alcohol and substance abuse was not indicated in any of the narratives. However, in three of the narratives, the offender's weapon of choice was an alcohol bottle. Three of these were identified as alcohol bottles.

*"… the accused used a Guinness beer bottle to inflict damage to the left eye of the complainant…"*

*"… the accused used a rum bottle to hit the complainant to her head…"*

*"… The accused used a piece of broken bottle to stab complainant on her upper arm…"*

In a fourth narrative, the male victim had instigated the fight by hitting the offender with a red stripe bottle.

*"… John used an empty red stripe bottle to hit her on the head and upper body..."*

***Urbanization***

The majority of the attacks occurred in a private home. As previously discussed, in both rural and urban areas, homes were in close proximity. Additionally, homes often had extended family members or extended family resided close by in the community. Not surprisingly, the narratives were silent with regard to anything else about the urbanization of the location. Note that in the Kingston and Saint Andrew metropolitan area, there are several hospitals and so the victims in these areas are always in close proximity (within roughly 15 kilometres) of a hospital. The plentitude of motor vehicles, including taxis, allows for quick transportation.

## RQ2.2: What new risk factors of IPV are found in the narratives of the Jamaican police reports?

To meet the objective of identifying new risk factors for IPV in the Jamaican context, focused coding was done to identify the most frequent and salient risk factors in the narratives without concern for a priori themes. By definition, a risk factor must occur prior to the IPV.

***Infidelity.***

Infidelity or another relationship was mentioned or implied in 26 narratives of which six of the victims were male. Infidelity of either partner had to occur prior to the IPV. As such, infidelity was considered a risk factor for IPV. WHO (2010) identified the offender having multiple partners as a risk factor for IPV. Infidelity of the offender was suggested in six of the narratives. For two of these narratives, the male offender was accused of infidelity and committed IPV against the victim.

> *"Complainant surprised her boyfriend at his home, and caught him with another woman in bed, both naked."*
>
> *"Victim and accused who are a couple had an argument after a female visited accused at his house."*

For the same-sex relationship, both male partners accused each other of infidelity.

> *"The now deceased and suspect lived together in a same sex relation overtime this relationship got sour where both parties accused each other of unfaithfulness."*

For three of the narratives, the offender was female. However, the fight ensued at the instigation of the victim who accused the offender of infidelity.

*"The now deceased went to girlfriend's house where he saw another male leaving the house. After which a heated argument developed and a tussle ensued, during which Jane stabbed John…"*

A few narratives did not clarify who was being accused of infidelity.

*"Complainant and suspect who are married had an argument in which suspect accused victim of being unfaithful."*

*"Victim and accused who is his common-law wife had a dispute over infidelity."*

More commonly, the narratives featured infidelity or accusations of infidelity of the female victim. Contrary to WHO's finding of infidelity of the offender as a risk factor, infidelity of the female lover was more highlighted in the Jamaican context. This represented another gendered pattern emerging from the narratives. Most often, these female lovers were accused of infidelity and were attacked by their male lovers.

*"Complainant and suspect who are married had an argument in which suspect accused victim of being unfaithful."*

*"Complainant was inside the kitchen talking on her cellular phone when her husband the accused came up to her and accused her of talking to a man."*

*"Victim and suspect shared who shared a relationship had a dispute. He argued that victim gave him a STD…"*

*"…an argument developed between them where the accuse was accusing the deceased of being unfaithful."*

*"Accused and complainant who share a common-law relationship were at home when an argument developed about complainant's infidelity."*

Although not truly infidelity, there were a few narratives where the female victim and male offender were estranged and the female victim had started a new relationship. The offenders reacted with violence.

> *"Both complainants (Joe and Jane) shared an intimate relationship and was lying in bed when the accused (John) who is a past lover of Jane kicked open a side door and opened gunfire at the couple."*
>
> *"Victims who are a couple was at home sleeping when suspect who is the father of Jane's child, forced open the kitchen window to house. He entered the house and fired shots hitting Jane in the head and also hitting her boyfriend Joe in the head, shoulder, hands and thighs."*
>
> *"… complainant and accused was involved in a relation which ended when the complainant move out of the accused man house. ... The accused proceeded to cut the complainant hand bag from her hand and stated that if he found any condom in it, he is going to stab her. The accused then threw out the complainant thing out of her bag and found one condom. The accused man stabbed the complainant …"*

One male victim falls in this category of victims who had moved on to new relationships.

> *"Victim who was a [other Caribbean country] national and has been living in Jamaica over the past ten years was married to the suspect. They had been separated for five years and victim returned home to [another parish] where he was from. Suspect visited the house on [Date] where victim was residing with his present girlfriend who is in an advanced state of pregnancy…"*

Given its prominence as a theme in the narratives, infidelity was added as a covariate in the quantitative analysis.

# CHAPTER SEVEN: QUANTITATIVE RESEARCH DESIGN

The extant literature presents differing theses on the impact of victim employment on IPV in developing nations. Based on routines activities theory, victim employment should reduce IPV due to reduced convergence of the victim and offender absent capable guardians in space and time. While being silent on the issue of offender motivation, routine activities theory focuses on the geospatial and opportunistic aspects of IPV. By contrast, based on control theory, victim employment may lead to increased IPV as offenders react to perceived loss of control as victims gain income. Control theory focuses on control as the motivation behind IPV. An added complication is that the IPV risk factors may also negatively impact victim employment. That is, the risk factors for IPV -- younger age, female, living in a rural area, married, cohabiting, and estranged from partner – may also be risk factors for victim unemployment. From the preceding qualitative results, infidelity by either the offender or the victim was identified as an additional risk factor in the Jamaican context. This quantitative analysis empirically tested the relationship between the IPV risk factors and victim employment ($H_{2a}$); the relationship between the IPV risk factors and victims having income ($H_{2b}$); the relationship between victim employment and IPV murder while controlling for the IPV risk factors and incident characteristics ($H_{3a}$); the relationship between Victim Income Status and IPV murder while controlling for the IPV risk factors and incident characteristics ($H_{3b}$); the relationship between victim employment and IPV severity while controlling for the IPV risk factors and incident characteristics ($H_{4a}$); and the relationship between Victim Income Status and IPV severity while controlling for the IPV risk factors

and incident characteristics ($H_{4b}$). These relationships are summarized in the causal diagram in Figure 17.

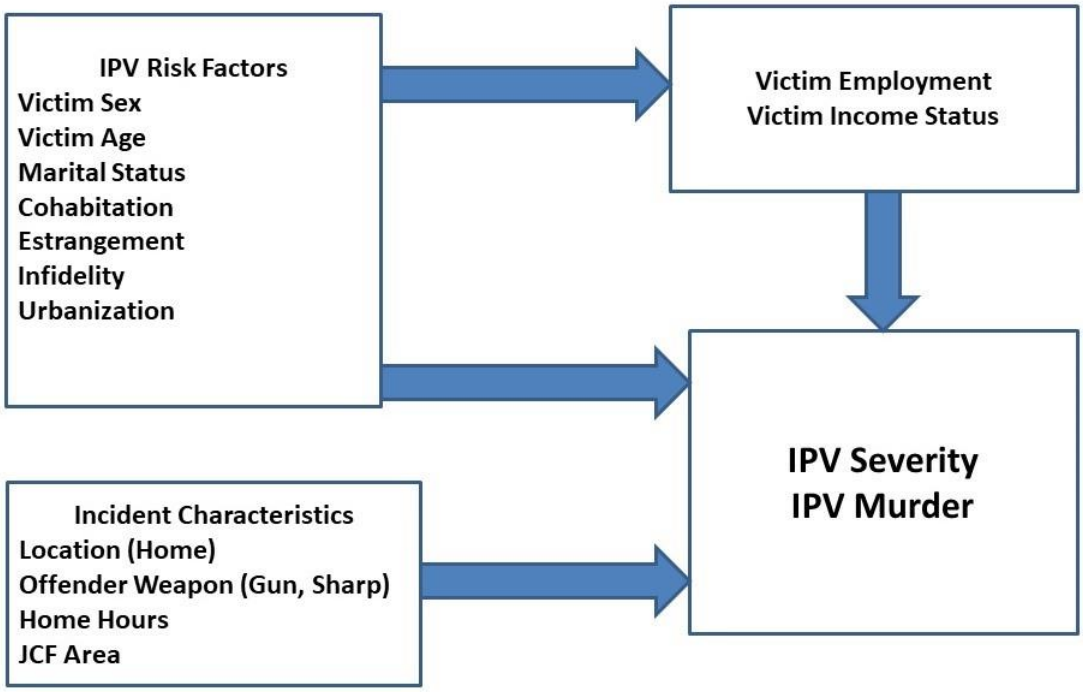


Figure 17: Aggregated Causal Diagram of the Relationships between IPV Risk Factors, Incident Characteristics, Victim Employment/ Victim Income Status, and IPV Severity/IPV Murder

## Research Questions and Hypotheses

To meet the study objective of examining the relationship between victim employment and IPV in Jamaica, the following quantitative research questions were addressed and related hypotheses tested:

RQ3.1: How are the risk factors for IPV different based on the victim's employment or the victim's income status?

Hypothesis 1($H_{1a}$): Employed victims are different from unemployed victims on the risk factors for IPV.

Hypothesis 1($H_{1b}$): Victims with income are different from victims with no income on the risk factors for IPV.

RQ3.2: Can the risk factors for IPV predict victim employment or victim income status in Jamaica?

Hypothesis 2 ($H_{2a}$): The IPV risk factors decrease the odds of victim employment.

Hypothesis 2 ($H_{2b}$): The IPV risk factors decrease the odds of the victims having income.

RQ3.3: How are victim employment and victim income status related to IPV murder in Jamaica?

Hypothesis 3 ($H_{3a}$): Employed victims have lower odds of IPV murder than unemployed victims.

Hypothesis 3 ($H_{3b}$): Victims with income have lower odds of IPV murder than victims with no income.

RQ3.4: How are victim employment and victim related to the severity of IPV in Jamaica?

Hypothesis 4 ($H_{4a}$): Victim employment decreases the severity of IPV.

Hypothesis 4 ($H_{4b}$): Victims having income decreases the severity of IPV.

## Dependent Variables

This study examined the impact of victim employment on (a) IPV murder and (b) the severity of IPV while controlling for globally-established risk factors for IPV (specifically: victim sex, victim age, marital status, estrangement, and urbanization) and incident characteristics (specifically:, incident location and policing region).

### *IPV Murder*

In the Jamaican police reports, the violent crimes are classified as murder, shooting, or aggravated assault occasioning grave bodily harm. The categories are mutually exclusive. The dependent variable of IPV Murder was treated as a dichotomous variable with the values of murder (1) indicating murders and non-murder (0) indicating non-fatal shootings and assaults.

### *IPV Severity*

The severity of the IPV may not be fully captured in the dichotomy of the first dependent variable, IPV Murder. To expand, the dichotomy fails to capture whether or not the murder was retaliatory or premeditated; the level of predation; assistance by others; injury to others, including minor children; the involvement of others as protectors; suicide by the offender; and the full nature of the acts contributing to the death. To illustrate, consider an incident where the estranged lover broke into the victim's home and raped her, killed her using a knife, and burnt down the home with the victim and the minor children. Consider a second incident where the current lover pushes the victim who then falls and hits her head causing a fatal injury. Both these incidents would be considered 'IPV murder' in the dichotomy, but the egregiousness of the two murders is starkly different.

Unfortunately, no pre-existing instrument to measure the severity of the IPV in police reports was found. The CDC (2006) provides a compendium of instruments to measure IPV victimization. However, the instruments (including seven for measuring physical victimization) are designed for victims or perpetrators of violence as respondents. Additionally, these instruments normally measure the severity of IPV by

counting the frequency of IPV incidents (CDC, 2006) and a few ask the victims to describe how hurtful or distressing the episode was to them. As such, these instruments are not appropriate for this study that only looks at one incident of IPV, and there was no contact with the victims or perpetrators. In the criminological literature, measures of severity of victimization outside of IPV, such as bullying, were also based on frequency counts and were inappropriate for this study. Due to the lack of a standardized instrument or contact with the victims, a novel way was designed to measure the severity of IPV.

Consequently, the second dependent variable of IPV Severity measured the severity of the IPV as reflected in the narratives of the Jamaican police reports using an online anonymous survey. Seven cases were excluded from the survey analysis as the narratives offered no information about the IPV incident itself (See these narratives in Appendix C).

### *Measuring IPV Severity*

To measure IPV Severity on a ratio scale, a sample of adult persons consented to participate in an anonymous, online survey about IPV in Jamaica. Each survey respondent was asked to each rate 25 (randomly selected) of the 159 cases by reviewing the actual narratives of the police reports. The narratives were de-identified and elements of dates were removed. De-identification included removal of the names of the offenders, victims, constables, witnesses, doctors, medical facilities, police stations, funeral homes, and geographic units smaller than a parish. When necessary to allow clarity the actual names were replaced with pseudonyms. 'John' and 'Jane' were used to indicate an intimate partner victim or offender. 'Joe' was used to indicate an extra-relationship lover that is not the intimate partner victim of offender. 'Ted' and 'Bob' were used to indicate adult unrelated male third parties, while 'Monica' and 'Michelle' were used to indicate adult unrelated female third parties. 'Michael' was used to indicate an adult male relative, while and 'Mary' was used to indicate an adult female relative. 'Timmy' was used for a child, including a minor child of the intimate partner dyad. The survey, called *Measuring the Severity of IPV in Jamaica*, was presented using University of Central Florida's Qualtrics survey tool. This is a novel pilot instrument, and so there was no pre-established reliability or validity.

Recruitment strategies targeted persons of Jamaican heritage. Invitations to participate were sent to social groups for Jamaicans to participate in the survey anonymously, such as Jamaican high school alumni associations. Persons of Jamaican-descent were targeted as it is assumed that they will understand the language and culture reflected in the narratives. As the survey is anonymous, the survey link was forwarded by

interested parties to others to invite participation. The anonymity deters social desirability in the responses for sensitive topics, such as IPV. This sampling method combines convenience sampling with snowball sampling. Additionally, respondents are self-selecting to participate. Therefore, the final sample of respondents should not be considered a representative random sample of Jamaicans.

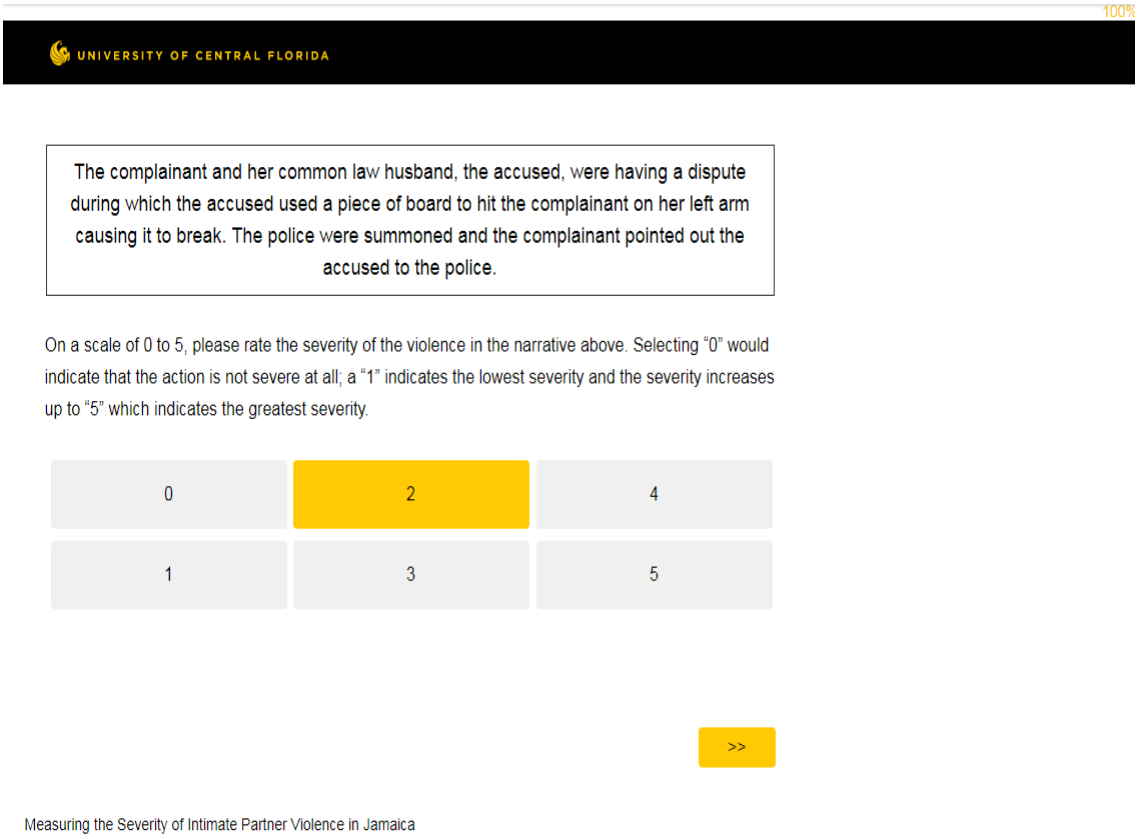


Figure 18: Question from the Intimate Partner Violence Survey

An example of a question in the online survey is presented in Figure 18. Respondents were asked to rate the severity of each incident on an ordinal scale of zero (0) to five (5). A zero (0) indicated that there is no severity at all; a one (1) indicated the least severity and severity increased to five (5) as indicated in Figure 19. Based on the

respondents' responses, the mean score of severity was assigned to the case. For data analysis, the scores were normalized by using z-scores.

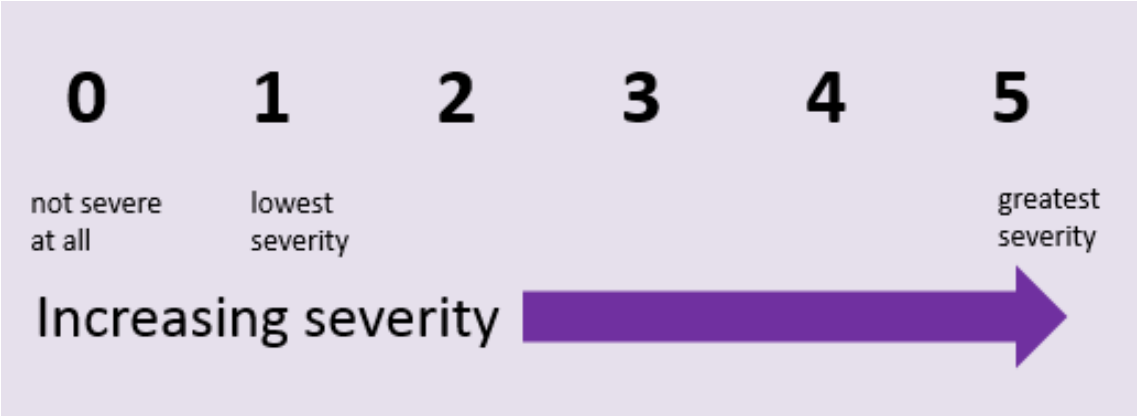


Figure 19: Rating Scale for the Intimate Partner Violence Survey

Given that each narrative has a 25/159 (15.7%) chance of being shown to each survey respondent, a target sample size of 190 respondents was chosen to increase the probability that each narrative gets a distribution of at least 30 responses. Given the use of social media, the target sample size of 190 within the two-month period appeared feasible and attainable.

**Independent Variables**

Victim employment has two facets- geospatial and income-producing. As such, victim employment was operationalized as Victim Employment capturing the geospatial facet and as Victim Income Status capturing the income-producing facet. Victim Employment and Victim Income Status were used both as dependent variables (influenced by the IPV risk factors) and independent variables predicting IPV Murder and IPV Severity.

***Victim Employment.***

The dataset provided information about the occupations of the victims. These were then categorized as employed; self-employed; student; pensioned retiree; and unemployed. The independent variable, Victim Employment, focused on the geospatial element of victim employment. Victim Employment was measured dichotomously as employed (1) and unemployed (0). Victims who had employment, victims who were self-employed, and victims who were students were considered 'employed' as these victims were assumed to leave the home regularly due to their employment. Victims who were unemployed and retired victims were considered 'unemployed' as these victims were assumed to be remaining at home due to their lack of employment. To be consistent with routine activities theory, it is assumed that employment and scholarship are done outside the home, and that unemployed victims pass most of their time at home and not otherwise engaged outside the home.


Figure 20: Intersection of Employed Victims and Victims with Income

***Victim Income Status.***

In accordance with control balance theory's focus on the income-producing element of employment, the victim's employment was also converted to the variable Victim Income Status. Victims who had employment, victims who were self-employed, and victims who were pensioned retirees were considered as having 'income' (1). Victims who were unemployed and victims who were students were considered as having 'no income' (0). Note that students were considered 'employed' for the variable Victim Employment as their scholarship took them outside the home; however these students were considered as having 'no income'. Similarly, pensioners were considered as having 'income' as they were receiving employment-related income; but they were considered 'unemployed' for the variable Victim Employment as they were not leaving the home to go to work. Figure 20 illustrates the overlap of the victims for these variables.

## Predictors: IPV Risk Factors

The globally established IPV risk factors and the newly identified risk factor, infidelity, were included in the quantitative analyses.

***Victim Sex.***

The victim of IPV is typically female while the offender is typically male. The variables of Victim Sex and Offender Sex were classified dichotomously as male (0) and female (1). From the dataset, all the couples were heterosexual except one homosexual couple (male victim and male offender). As Victim Sex and Offender Sex are highly correlated, only Victim Sex was included in the regression analyses.

***Victim Age.***

The study limits the sample to victims and offenders above the age of 18. In July 2014, the median age in Jamaica was 26.0 years (CIA, 2017). From the dataset, the median age for men was 25.5 years, while the median age for women was 26.5 years. For the two missing values, the mean age for that sex was imputed. The variable of victim age in years, Victim Age, was collected as a ratio variable. Victim Age was recoded into Victim Age Under 30, a dichotomous variable with the age range values of age ≤ 30 (1) and age >30 (0).

***Marital Status.***

In 2012, the Jamaica National Crime Victimization Survey (JNCVS) reported that 22.8%, 12.4% and 12.0% of the respondents identified their marital status as married, common law, and visiting respectively. From the data set, the marital status of the victim and the offender were (a) married, indicating husbands, ex-husbands, wives, ex-wives and those spouses that were legally separated; (b) common law marriage, indicating that they cohabitated but were not legally married. Ex-common law spouses were also included in this category; or (c) visiting, indicting girlfriends and boyfriends that were not cohabiting, including those that were estranged. In the Jamaican context, a current or estranged girlfriend or boyfriend with whom the person shares a child but does not cohabit is termed ‘babymother’ or ‘babyfather’ respectively. These persons are also included in the ‘visiting’ category. For analysis as a dichotomous variable, Marital Status had the values of married (1) and not married (0) where ‘married’ included both legal marriages and common law marriages as is appropriate for the Jamaican context.

***Cohabitation.***

Closely related to marital status, the variable of Cohabitation was included and measured dichotomously as cohabiting (1) indicating that the couple resided together in the mutual home and not cohabiting (0) indicating that the intimate partners had separate residences.

***Estrangement.***

Research supports that the severity of the IPV is greatest when the victim leaves the offender or is estranged from the offender. The variable of Estrangement was classified dichotomously as estranged (1) or not estranged (0). Estranged relationships included those where the couple have broken up regardless of their marital status, filed for legal separation, or divorced.

***Infidelity.***

From the preceding content analysis, infidelity was identified as a risk factor for IPV in the Jamaican context. Consequently, the variable of Infidelity was added to the analysis. Infidelity was defined as the mention of a love rival for either partner in the police report. This includes lovers of the offender or the victim and current or new lovers of estranged partners. Infidelity was classified dichotomously as infidelity indicated (1) or no infidelity indicated (0).

***Urbanization.***

The variable of Urbanization indicated the location of the victim's home in an urban versus a rural area. Urbanization was measured as a dichotomously with the values of urban (0) or rural (1). The island is geographically divided into 14 parishes: Clarendon, Kingston, Hanover, Manchester, Portland, Saint Andrew, Saint Ann, Saint Catherine,

Saint Elizabeth, Saint James, Saint Mary, Saint Thomas, Trelawny, and Westmoreland. There are two major cities: Kingston, the capital, and Montego Bay. The parishes of Kingston and Saint Andrew constitute the metropolitan area. The urban areas were defined as the entire parishes of Kingston and Saint Andrew, the Greater Portmore area of Saint Catherine, and the Montego Bay area of Saint James. These areas were identified as being highest in population density (CIA, 2017). All other areas were defined as rural.

## Predictors: Incident Characteristics.

Incident characteristics were also included in the quantitative analysis.

### *Home Hours.*

Home Hours was measured as a dichotomous variable with the values of home hours (1) and work hours (0) representing traditional home hours and traditional work hours respectively. As previously stated, traditional work hours were defined as Monday through Friday from 6am to 6pm. All other times were defined as traditional home hours.

### *Home.*

The dichotomous variable Home indicated if the victimization occurred in a private home or elsewhere. The variable was assigned the values of home (1) and not home (0).

### *Gun.*

The dichotomous variable Gun measured if a gun was used at all in the victimization, including if a gun was presented but not fired at the IPV victim. The variable Gun took the values of gun (1) and no gun (0).

***Sharp.***

The dichotomous variable Sharp measured if any sharp or piercing object was used in the victimization, including if a sharp or piercing object was presented but not used or was not the weapon that did the gravest harm. The variable Sharp took the values of sharp (1) if any sharp or piercing object was used and no sharp (0) if no sharp or piercing object was used.

***JCF Area.***

JCF Area was treated as a categorical variable with the values Area I, Area II, Area III, Area IV, and Area V with JCF Area IV (the major metropolitan area of Kingston and Saint Andrew) as the reference category. For some analyses, JCF Area was treated as a dichotomous variable with the values of JCF Area IV (1) and all other JCF areas (0).

## Summary Table of Variables

Table 12: Summary Table of Study Variables

| Variable | Definition | Type | Values |
|---|---|---|---|
| Dependent Variables | | | |
| IPV Murder | The victim was murdered. | Dichotomous | murder (1); non-murder |
| IPV Severity | The severity of the IPV in the case. | Ratio Scale | Z score for IPV Severity |
| Predictor Variables | | | |
| Victim Employment | Employment status of the victim. | Dichotomous | employed (1); unemployed |
| Victim Income Status | Victim had income from employment or pension. | Dichotomous | income (1); no income |
| Victim Sex | Victim's sex. | Dichotomous | female (1); male |
| Victim Age | Victim's age in years. | Ratio | age ≥ 18 |
| Victim Age Under 30 | Victim's age in years. | Dichotomous | age ≤ 30 (1); age >30 |
| Marital Status | Couple's marital status. | Dichotomous | married (1); unmarried |
| Cohabitation | Couple resided together. | Dichotomous | cohabiting (1); not cohabiting |
| Estrangement | Estrangement of the couple at the time of the incident. | Dichotomous | estranged (1); not estranged |
| Infidelity | Infidelity of either partner. | Dichotomous | infidelity (1); no infidelity |
| Urbanization | Urbanity of victim's home. | Dichotomous | rural (1); urban |
| Home Hours | Victimization occurred during traditional work hours versus home hours. | Dichotomous | home hours (1); work hours |
| Home | Place where the crime occurred. | Dichotomous | home (1); not home |
| Gun | Offender used a gun. | Dichotomous | gun (1); no gun |
| Sharp | Offender used a sharp or piercing weapon. | Dichotomous | sharp (1); no sharp |
| JCF Area | The regional area of the JCF. | Categorical | JCF Area I; JCF Area II; JCF Area III; JCF Area IV (reference); JCF Area V |
| | | Dichotomous | JCF Area IV (1); all other areas |

## Assumptions

From the data set, it is assumed that each victim is independent. To be consistent with routine activities theory, the study assumes that victim employment is outside the home and that the offender is not the victim's co-worker. Thus, victim employment would reduce the temporal and geospatial convergence of the victim with the offender.

Further, the study assumes that the relationship between Victim Employment and IPV Severity and the relationship between Victim Income Status and IPV Severity are both unidirectional. This is a fair assumption as the cases include murders which cannot temporally occur prior to victim employment or victim income status. Still, leading up to the victim murder, the relationship between victim employment and IPV severity could have been bi-directional. Further, for the inferential analyses, the following assumptions were made:

a) Each variable is independent.
b) The relationship between each independent variable and IPV murder is log-linear.
c) The relationship between each independent variable and IPV severity is linear.
d) There is homogeneity of variance.
e) The dependent variable, IPV Severity, is normally distributed.

## Statistical Analyses

The purpose of this study was to examine the relationship between victim employment and victim income status and the severity of IPV and IPV murder in Jamaica while controlling for globally established risk factors of IPV and characteristics of the IPV incident. The victim is the unit of analysis. Descriptive statistics were reported. Inferential analyses were done using Chi Square tests for independence, logistic

regression, and linear regression. For all analyses, statistical significance was established at $\alpha = .05$. A confidence interval of 95% was used.

***Statistical Handling of Missing Data.***

There was missing data in the dataset. Ideally, missing data is less than 5% (Gravetter & Wallnau, 2012). As this is a secondary data analysis, the missing data was not attainable. As previously indicated in Table 3, for the variable Victim Age, the mean age for that sex was imputed and used to replace the missing values. For the categorical variables, the modal value was used to replace the missing values. If the data was missing for a dependent variable (Victim Employment, Victim Income Status, IPV Severity), the case was excluded from the inferential analysis.

***Effect Size.***

As given in Table 13, Cohen's (1988) criteria were used to judge the strength of a statistical effect.

Table 13: Effect Size (Cohen, 1988)

| Effect Size | $\chi^2$ | t test | Regression |
|---|---|---|---|
| Small | ≈ 0.10 | ≈ 0.10 | ≈ 0.10 |
| Medium | ≈ 0.30 | ≈ 0.30 | ≈ 0.30 |
| Large | ≈ 0.50 | ≈ 0.50 | ≈ 0.50 |

***Statistical Power.***

At sample sizes greater than 100, statistical power is not a critical issue (Stephens, 1996). Still, based on the sample size for each regression analysis, a one-sided alpha of .05, and the resulting effect size, the statistical power was calculated for each analysis using G*Power 3.1. (Faul, Erdfelder, Buchner, & Lang, 2009).

***Multicollinearity.***

In the social sciences, complete independence of variables is rare. Multicollinearity exists when two predictor variables are strongly related, and so cannot be considered independent. The independent impact of one of the predictor variables, represented by the regression coefficient β, cannot be ascertained while holding all other variables constant. The problem of multicollinearity can be resolved by: (a) increasing the sample size; (b) combining the problematic independent variables into one scale; or (c) eliminating problematic (redundant) variables. With this secondary data set, it is not possible to increase the sample size. Additionally, as the units of measurement are different for the predictor variables, it is not possible to combine them into a scale. The only viable solution was to eliminate highly collinear variables from analysis.

***Pearson Product-Moment Correlations***

Simple Pearson product-moment correlation coefficients were computed so as to diagnose multicollinearity. Cohen (1988) used .5 to 1.0 or as the standard correlation above which two variables are considered to display a large amount of multicollinearity, with values above .90 being unacceptable for statistical analysis. For this study, a more stringent standard was applied. For variables with a correlation of above .80, one of the variables was removed to prevent redundancy and reduce statistical errors.

***Tolerance and Variance Inflation Factors***

The tolerance and variance inflation factors (VIF) of the predictor variables measure the extent to which a predictor can be explained by the other predictors in the regression equation. The tolerance of an independent variable is equal to $(1-R^2)$. As a general rule, tolerance values below .40 are a cause for concern due to multicollinearity

with values below .10 indicating severe multicollinearity. The VIF of the β coefficients is equal to 1/ (1-$R^2$) or 1/tolerance. As a general rule, any VIF value above 5.0 is a cause for concern due to severe multicollinearity with values above 10.0 indicating severe multicollinearity.

***Statistical Analysis Tool.***

For all analyses, SPSS Version 24 (IBM, 2016) was used.

**RQ3.1: How are the risk factors for IPV different based on the victim's employment or the victim's income status?**

The differences in the risk factors for IPV (Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Estrangement, and Urbanization) for employed victims versus unemployed victims were examined.

***$H_{1a}$: Employed victims are different from unemployed victims on the risk factors for IPV.***

For the categorical variables (Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Estrangement, and Urbanization), the two-tailed hypotheses that victim employment is statistically independent of each categorical variable were tested using the Pearson Chi-Square $\chi^2$ test of independence as demonstrated in Equation 1.

$$H_1: \mu_1 \neq \mu_2 \tag{1}$$

Crosstabs were used to analyze the frequencies of the categories of the risk factors as demonstrated in Equation 2. The degree of freedom (df) is equal to the number of categories minus one.

$$\chi^2 = \frac{\sum (\text{Observed Frequency-Expected Frequency})^2}{\text{Expected Frequency}} \quad (2)$$

Chi-Square tests were appropriate as (a) the variables are categorical; (b) the values within each variable are independent, mutually exclusive, and exhaustive; (c) the data is reported in raw frequencies; and (d) most categories (>80%) are expected to have a frequency of more than five. The study did not use a random sample. However, the Chi-Square test is a robust non-parametric test, and are not be affected by latent violations of normality. The Pearson Chi-Square and the Hosmer-Lemeshow statistic were used to ascertain goodness of fit of the model. The Nagelkurke $R^2$ will be used to ascertain the proportion of variance explained by the independent variable and the risk factors. The Phi statistic and the Cramer's V statistics were used to determine effect size (Gravetter & Wallnau, 2012).

For Victim Age, which is measured on a ratio scale, the two-tailed hypothesis that victim employment is statistically independent of victim age was tested using the t-test as demonstrated in Equation 3.

$$H_1: \mu_1 \neq \mu_2 \quad (3)$$

where $\mu$ represents the statistical mean.

The t-test and Levene's test for equality of variances were used to ascertain statistical significance. The eta squared was calculated to determine the effect size.

***$H_{1b}$: Victims with income are different from victims with no income on the risk factors for IPV.***

For the categorical variables (Victim Sex, Victim Age Under 30, Offender Age, Marital Status, Cohabitation, Estrangement, and Urbanization), the two-tailed hypotheses that victim income status is statistically independent of each categorical variable were tested using the Pearson Chi-Square test of independence as demonstrated in Equation 4.

$$H_1: X_1 \neq X_2 \tag{4}$$

Crosstabs were used to analyze the frequencies of the categories of the risk factors as demonstrated in Equation 5. The degree of freedom (df) is equal to the number of categories minus one.

$$\chi^2 = \frac{\sum (\text{Observed Frequency-Expected Frequency})^2}{\text{Expected Frequency}} \tag{5}$$

For Victim Age, which is measured on a ratio scale, the two-tailed hypothesis that victim employment is statistically independent of victim age, measured on a ratio scale, was tested using the t-test as demonstrated in Equation 6.

$$H_1: \mu_1 \neq \mu_2 \tag{6}$$

where $\mu$ represents the statistical mean.

The t-test and Levene's test for equality of variances were used to ascertain statistical significance. The eta squared was calculated to determine the effect size.

**RQ3.2: Can the risk factors for IPV predict victim employment or victim income status in Jamaica?**

The IPV risk factors for IPV may also be predictors of victim employment and victim income status. As such, victim employment or victim income status would be an exogenous variable. The risk factors for IPV were examined as predictors of victim employment and of victim income status. These hypotheses were tested using logistic regression.

Logistic regression is appropriate for binary dependent variables, such as Victim Employment and Victim Income Status. Starting with a saturated model, backward elimination of variables was used to produce the most parsimonious model. After each variable's elimination, the goodness-of-fit of the remaining model was assessed using the likelihood ratio. The maximum likelihood method was used. All the categorical variables were used in a binary form. The study assumes that the predictor variables have a log-linear relationship with Victim Employment and Victim Income Status and that the relationships are unidirectional. To verify this assumption, the histogram of the log-odds of Victim Employment and Victim Income Status were examined. The Pearson Chi-Square, the Hosmer-Lemeshow statistic, and the Omnibus Test of Model Coefficients were used to confirm that the model's statistical significance. The Wald statistic was used to confirm that each variable had a statistically significant and independent impact. The Nagelkerke $R^2$ and Cox & Snell $R^2$ were used to determine the amount of variance that was explained by the model.

***$H_{2a}$: The IPV risk factors decrease the odds of victim employment.***

As demonstrated in Figure 21, the hypothesis that the IPV risk factors --- Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Infidelity, Estrangement, and Urbanization --- are able to predict the odds of Victim Employment was tested.

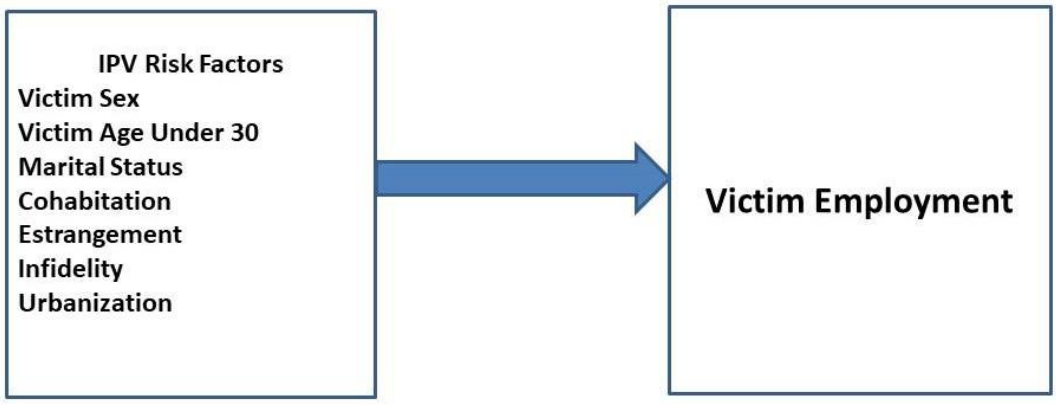


Figure 21: Predictive Model of Victim Employment using IPV Risk Factors

The logistic regression equation is demonstrated in Equation 7.

$$\text{Log(Victim Employment)} = \beta_0 + \beta_1(\text{Victim Sex}) + \beta_2(\text{Victim Age Under 30}) + \beta_3(\text{Marital Status}) + \beta_4(\text{Cohabitation}) + \beta_5(\text{Estrangement}) + \beta_6(\text{Infidelity}) + \beta_7(\text{Urbanization}) \quad (7)$$

where $\beta_0$ represents the constant coefficient; $\beta_i$ represents the standardized regression coefficient of the $i^{th}$ independent variable.

The log odds were calculated as demonstrated in Equation 8.

$$\boldsymbol{Log(Victim\ Employment)} = \frac{\boldsymbol{p(Victim\ Employment)}}{[\boldsymbol{1 - p(Victim\ Employment)}].} \quad (8)$$

***$H_{2b}$: The IPV risk factors decrease the odds of victims having income.***

As demonstrated in Figure 22, the hypothesis that the IPV risk factors --- Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Infidelity, Estrangement, and Urbanization --- are able to predict the odds of Victim Income Status was tested.

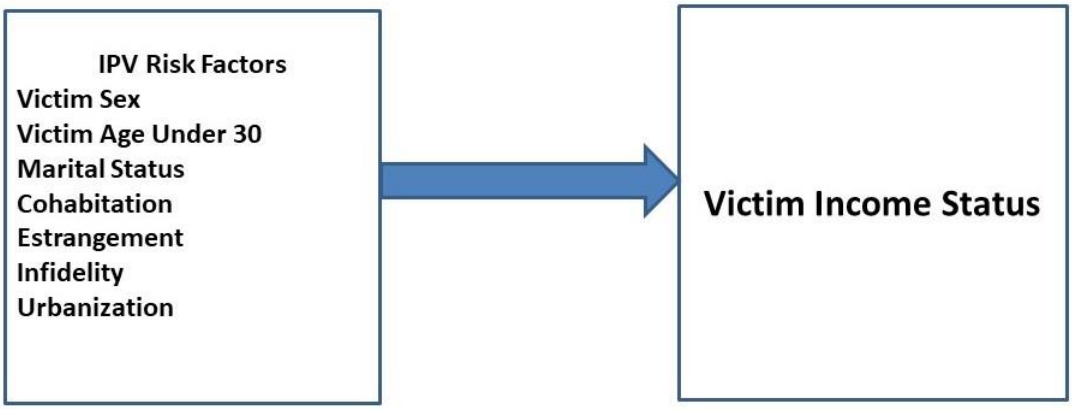


Figure 22: Predictive Model of Victim Income Status using IPV Risk Factors

The logistic regression equation is demonstrated in Equation 9.

$$\text{Log(Victim Income Status)} = \beta_0 + \beta_1(\text{Victim Sex}) + \beta_2(\text{Victim Age Under 30}) + \beta_3(\text{Marital Status}) + \beta_4(\text{Cohabitation}) + \beta_5(\text{Estrangement}) + \beta_6(\text{Infidelity}) + \beta_7(\text{Urbanization}) \quad (9)$$

where $\beta_0$ represents the constant coefficient; $\beta_i$ represents the standardized regression coefficient of the $i^{th}$ independent variable.

The log odds were calculated as demonstrated in Equation 10.

$$\boldsymbol{Log(Incomed\ Victim)} = \frac{\boldsymbol{p(Incomed\ Victim)}}{[\boldsymbol{1 - p(Incomed\ Victim)}].} \quad (10)$$

**RQ3.3: How are victim employment and victim income status related to IPV murder in Jamaica?**

The most egregious consequence of IPV is the death of the victim. According to routine activities theory, victim employment would decrease the likelihood of IPV Murder due to reduced temporal and geospatial convergence of the offender and the victim absent a capable guardians. By contrast, according to the control balance theory, victim employment would increase the likelihood of IPV Murder as the offender seeks to exercise control and establish power over the victim as the victim has income. Current research supports victim employment decreasing the likelihood of IPV Murder, and so this was used as the preferred hypothesis. Employment also provides income (and by extension, resources) for the victim. Therefore, the study also examined the impact of victim income status on the likelihood of IPV murder.

Logistic regression was used to examine the impact of victim employment, victim income status, and the control variables on the likelihood of IPV murder. Logistic regression is appropriate for binary dependent variables, such as IPV Murder. Starting with a saturated model, backward elimination of variables was used to produce the most parsimonious model. After each variable's elimination, the goodness-of-fit of the remaining model was assessed using the likelihood ratio. The maximum likelihood method was used. All the predictor variables were used in a binary form except for JCF Area which was treated as a categorical variable with JCF Area IV as the reference category. The Omnibus Test of Model Coefficients and the Hosmer-Lemeshow statistic were used to confirm that each model's statistical significance. The Wald statistic was used to confirm that each variable had a statistically significant and independent impact

on IPV Murder. The Nagelkerke $R^2$ and Cox & Snell $R^2$ were used to determine the amount of variance that was explained by the model.

The study assumed that the predictor variables have a log-linear relationship with IPV Murder and that the relationship is unidirectional. To verify this assumption, the histogram of the log-odds of IPV Murder was examined.

***$H_{3a}$: Employed victims have lower odds of IPV murder than unemployed victims.***

According to routine activities theory, victim employment would reduce the temporal and geospatial convergence between the offender and the victim in the absence of a capable guardian. Therefore, victim employment would decrease the odds of IPV murder ($H_{3a}$).

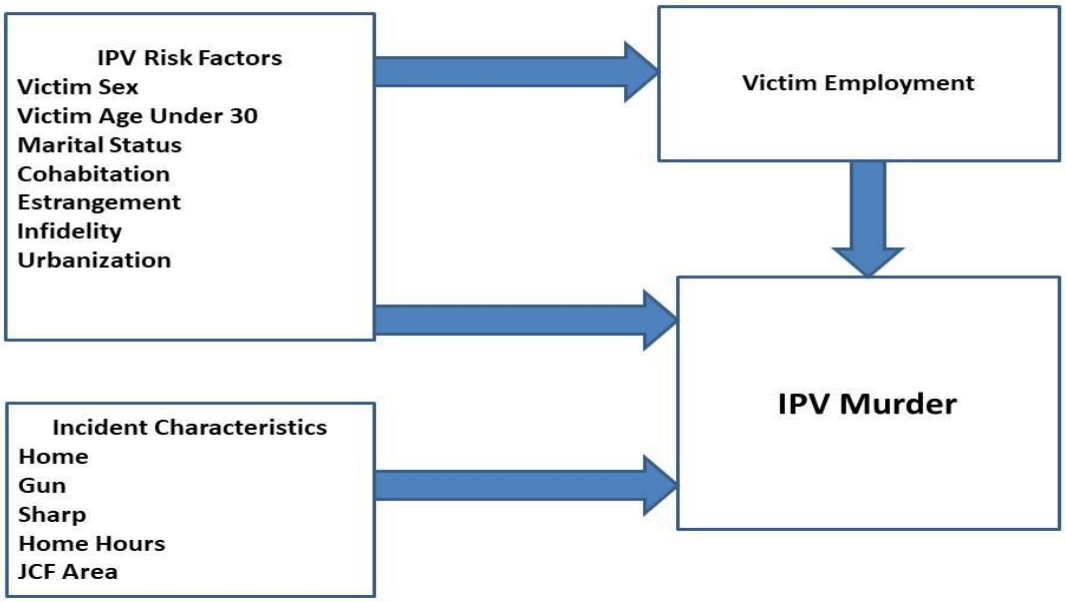


Figure 23: Predictive Model for IPV Murder using Victim Employment, IPV Risk Factors, and Incident Characteristics

As demonstrated in Figure 23, the following hypothesis was tested:

$H_{3a}$: Employed victims have lower odds of IPV murder than unemployed victims.

The logistic regression equation is demonstrated in Equation 11.

$$\text{Log(IPV Murder)} = \beta_0 + \beta_1(\text{Victim Employment}) + \beta_2(\text{Victim Sex}) + \beta_3(\text{Victim Age Under 30}) + \beta_4(\text{Marital Status}) + \beta_5(\text{Cohabitation}) + \beta_6(\text{Estrangement}) + \beta_7(\text{Infidelity}) + \beta_8(\text{Urbanization}) + \beta_9(\text{Home}) + \beta_{10}(\text{Gun}) + \beta_{11}(\text{Sharp}) + \beta_{12}(\text{Home Hours}) + \beta_{13}(\text{JCF Area}) \quad (11)$$

where $\beta_0$ represents the constant coefficient; $\beta_i$ represents the standardized regression coefficient of the $i^{th}$ independent variable.

The log odds were calculated as demonstrated in Equation 12.

$$\boldsymbol{Log(IPV\ Murder)} = \frac{\boldsymbol{p(IPV\ Murder)}}{[\boldsymbol{1 - p(IPV\ Murder)}]} \quad (12)$$

***$H_{3b}$: Victims with income have lower odds of IPV murder than victims with no income.***

According to control balance theory, the offenders' violence would escalate to gain control over victims with income. Therefore, victims with income would have higher odds of IPV murder than victims with no income.

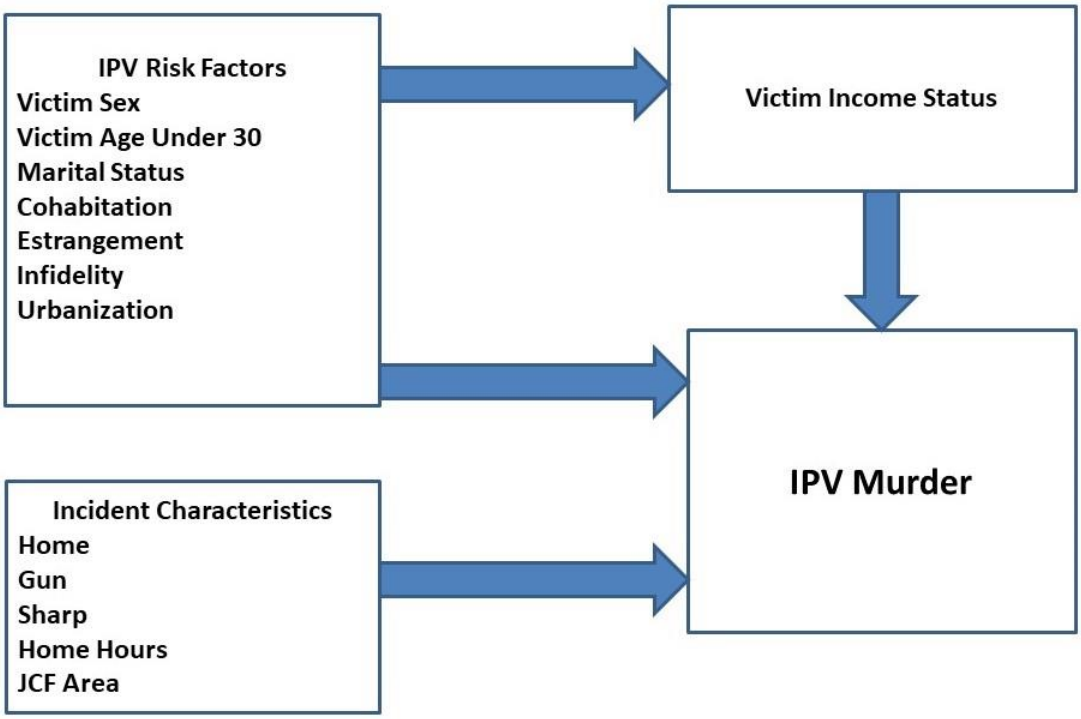


Figure 24: Predictive Model for IPV Murder using Victim Income Status, IPV Risk Factors, and Incident Characteristics

As demonstrated in Figure 24, the following hypothesis was tested:

*$H_{3b}$*: Victims with income have lower odds of IPV murder than victims with no income.

The logistic regression equation is demonstrated in Equation 13.

$$\text{Log(IPV Murder)} = \beta_0 + \beta_1(\text{Victim Income Status}) + \beta_2(\text{Victim Sex}) + \beta_3(\text{Victim Age Under 30}) + \beta_4(\text{Marital Status}) + \beta_5(\text{Cohabitation}) + \beta_6(\text{Estrangement}) + \beta_7(\text{Infidelity}) + \beta_8(\text{Urbanization}) + \beta_9(\text{Home}) + \beta_{10}(\text{Gun}) + \beta_{11}(\text{Sharp}) + \beta_{12}(\text{Home Hours}) + \beta_{13}(\text{JCF Area}) \quad (13)$$

where $\beta_0$ represents the constant coefficient; and $\beta_i$ represents the standardized regression coefficient of the $i^{th}$ independent variable.

The log odds were calculated as demonstrated in Equation 14.

$$\boldsymbol{Log(IPV\ Murder)} = \frac{\boldsymbol{p(IPV\ Murder)}}{[\boldsymbol{1 - p(IPV\ Murder)}]} \tag{14}$$

**RQ3.4: How are victim employment and victim income status related to the severity of IPV in Jamaica?**

The impact of all the risk factors (including Victim Employment and Victim Income Status) on the IPV Severity was evaluated using multiple linear regression. Multiple linear regression was appropriate as the continuous dependent variable, IPV Severity, was being predicted by categorical and continuous independent variables. IPV Severity (the Z scores of severity) was assumed to be normally distributed. To test this assumption, the histogram and normal Q-Q plot of the data were examined. Additionally, the statistics for skewness, kurtosis, Kolmogorov-Smirnov, and Shapiro-Wilk were reviewed.

Starting with a saturated model, variables were removed to produce the most parsimonious model. The maximum likelihood method was used. The study assumed that the predictor variables had a linear relationship with IPV Severity and that the relationship is unidirectional. The F statistic was used to confirm that the model was statistically significant. The t test was used to confirm that the independent contribution of a predictor variable was statistically significant. The $R^2$ was used to determine the amount of variance that is explained by the model.

***$H_{4a}$: Victim employment decreases the severity of IPV.***

Based on the routine activities theory, the second hypothesis ($H_{4a}$) is that victim employment decreases the severity of IPV. By contrast, based on the control balance theory, victim employment increases the severity of IPV.

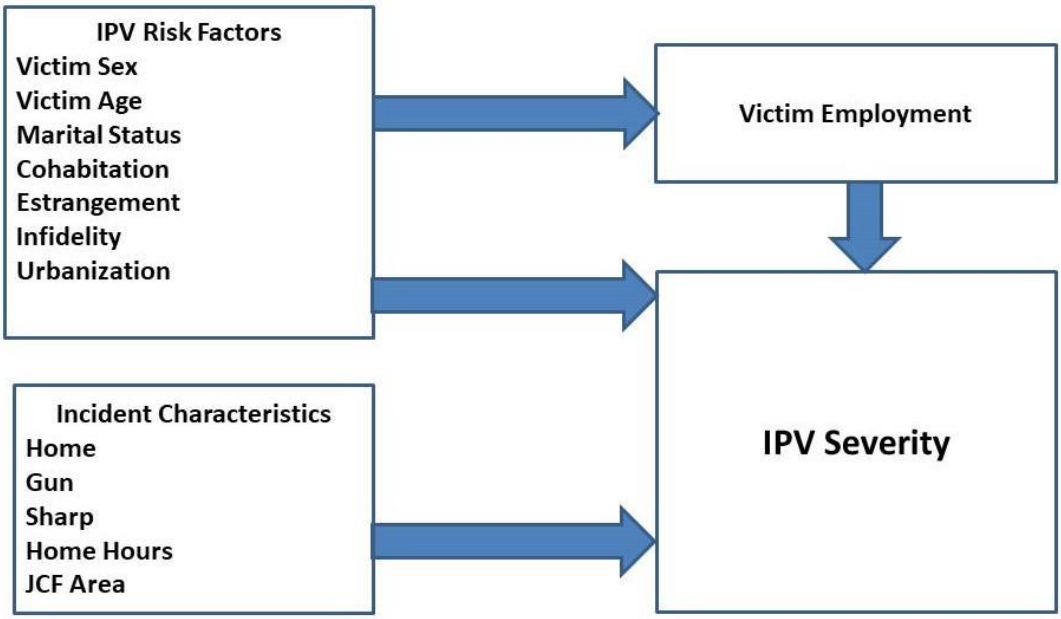


Figure 25: Predictive Model for IPV Severity using Victim Employment, IPV Risk Factors, and Incident Characteristics

As illustrated in Figure 25, the following hypothesis was tested:

$H_{4a}$: Victim employment decreases the severity of IPV.

Hypothesis $4_a$ was tested using linear regression while controlling for the risk factors for IPV and the incident characteristics. The linear regression equation is demonstrated by Equation 15.

$$\text{IPV Severity} = \beta_0 + \beta_1(\text{Victim Employment}) + \beta_2(\text{Victim Sex}) + \beta_3(\text{Victim Age}) + \beta_4(\text{Marital Status}) + \beta_5(\text{Cohabitation}) + \beta_6(\text{Estrangement}) + \beta_7(\text{Infidelity}) + \beta_8(\text{Urbanization}) + \beta_9(\text{Home}) + \beta_{10}(\text{Gun}) + \beta_{11}(\text{Sharp}) + \beta_{12}(\text{Home Hours}) + \beta_{13}(\text{JCF Area}) \quad (15)$$

where $\beta_0$ represents the constant coefficient; and $\beta_i$ represents the standardized regression coefficient of the $i^{th}$ independent variable.

***$H_{4b}$: Victims having income decreases the severity of IPV.***

By contrast, based on the control balance theory providing an alternative hypothesis, victims having income increases the severity of IPV as offenders act to maintain control over the victims. As illustrated in Figure 26, the following hypothesis was tested:

*$H_{4b}$*: Victims having income decreases the severity of IPV.

The hypothesis was tested using linear regression while controlling for the risk factors for IPV and the incident characteristics. The linear regression equation was:

$$\text{IPV Severity} = \beta_0 + \beta_1(\text{Victim Income Status}) + \beta_2(\text{Victim Sex}) + \beta_3(\text{Victim Age}) + \beta_4(\text{Marital Status}) + \beta_5(\text{Cohabitation}) + \beta_6(\text{Estrangement}) + \beta_7(\text{Infidelity}) + \beta_8(\text{Urbanization}) + \beta_9(\text{Home}) + \beta_{10}(\text{Gun}) + \beta_{11}(\text{Sharp}) + \beta_{12}(\text{Home Hours}) + \beta_{13}(\text{JCF Area}) \quad (16)$$

where $\beta_0$ represents the constant coefficient; and $\beta_i$ represents the standardized regression coefficient of the $i^{th}$ independent variable.

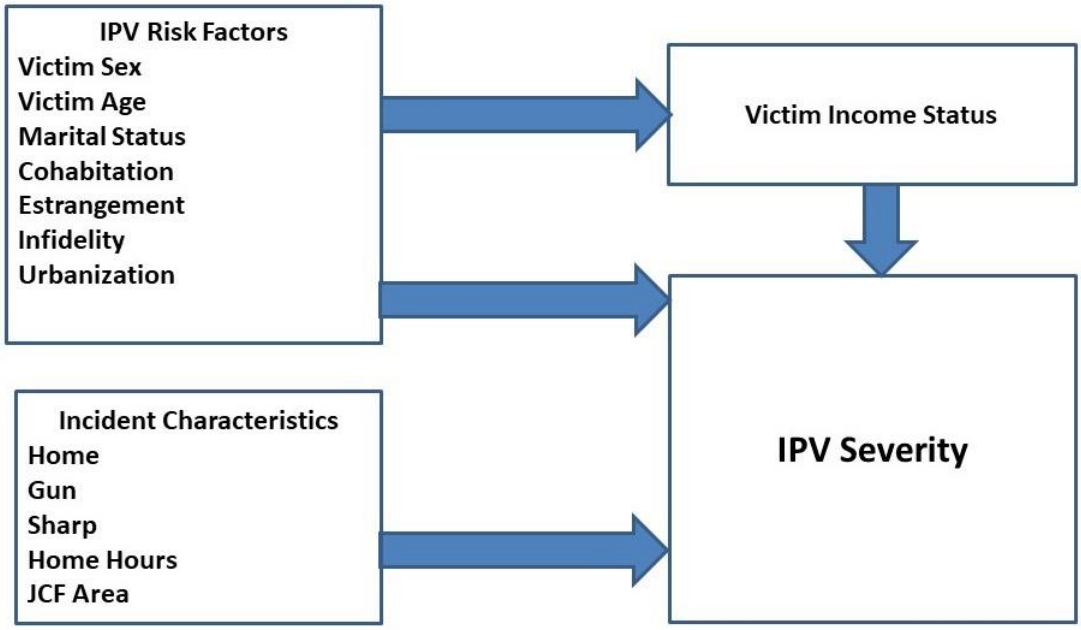


Figure 26: Predictive Model for IPV Severity using Victim Income Status, IPV Risk Factors, and Incident Characteristics

# CHAPTER EIGHT: QUANTITATIVE RESULTS

## Introduction

Quantitative analyses focused on the impact of victim employment and victim income status on IPV murder and the severity of IPV while controlling for the IPV risk factors and incident characteristics. Additionally, the impact of the IPV risk factors on victim employment and victim income status were also examined.

## Missing Data for Dependent Variables

For eight (4.8%) of the victims, information about their employment and their income was missing. As a consequence, these victims were excluded from the regression analyses. Supplemental information about these eight victims is being provided here. Possibly reflecting a trend in improved reporting for IPV cases by the JCF, one of these victims was attacked in 2013, five in 2014, one in 2015, and one in 2016. Six of these eight victims were female. All these victims were killed by their heterosexual partners. These victims' ages ranged from 21 to 41 years. Four of them were married to the offenders. These same four were the only victims who cohabited with the offenders. In the narratives of the police reports for these victims, infidelity was never noted. The offenders used a variety of weapons to attack these victims, but none involved a gun. Two offenders used a sharp weapon (one used a knife and the other used a machete). One used fire.

Seven of these victims were attacked during traditional work hours. Recall that there were only 57 victims who were attacked during traditional work hours. These seven victims account for 12.3% of the victims who were attacked during work hours, and they

are not being included in the regression analyses. This may significantly retard the performance of the variable Home Hours.

Only one of these victims was killed. This victim was a 28 year old woman. She was married and cohabiting with her killer albeit estranged (in the process of separating). She was killed in the mutual home which is located in an urban area. The sole male victim was killed in his home by his girlfriend who used a knife.

## Multicollinearity

Regression assumes that each predictor variable is acting independently; that is, the predictor variables are not highly correlated with each other or there is no multicollinearity. In reviewing the Simple Pearson product-moment correlation coefficients of the predictors as shown in Table 14, the variables Cohabitation and Marital Status had a correlation of .856 ($p < .01$). As such, Cohabitation was excluded from all the inferential analyses. The variables of Urbanization and JCF Area had a correlation of .774 ($p < .01$) which was perilously close to the cut off of .80. However, both these variables were retained for regression analysis.

Table 14: Pearson Correlations of Predictors

| Predictor | Victim Employment | Victim Income Status | Victim Sex | Victim Age | Victim Age Under 30 | Marital Status | Cohabitation | Estrangement | Infidelity | Urbanization | Home | Gun | Sharp | Home Hours | JCF Area |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Victim Employment | 1 | .852** | -.245** | .009 | -.092 | .051 | .040 | -.015 | .021 | -.016 | -.085 | .115 | .030 | .049 | .088 |
| Victim Income Status | | 1 | -.302** | .216** | -.226** | .075 | .092 | -.104 | .008 | -.019 | -.052 | .102 | .040 | .008 | .077 |
| Victim Sex | | | 1 | -.208** | .180* | .055 | -.014 | .130 | .022 | .011 | -.108 | .188* | -.195* | -.012 | .101 |
| Victim Age | | | | 1 | -.775** | .385** | .430** | -.258** | .030 | .073 | .143 | -.034 | .072 | .036 | -.085 |
| Victim Age Under 30 | | | | | 1 | -.230** | -.302** | .206** | -.056 | .012 | -.112 | .075 | -.130 | .021 | -.035 |
| Marital Status | | | | | | 1 | .856** | -.217** | -.012 | .105 | .070 | -.010 | .044 | .054 | -.116 |
| Cohabitation | | | | | | | 1 | -.313** | .010 | .012 | .168* | -.021 | .040 | .046 | -.066 |
| Estrangement | | | | | | | | 1 | .117 | .128 | -.226** | -.015 | .105 | .003 | -.078 |
| Infidelity | | | | | | | | | 1 | .045 | .016 | .116 | .038 | .102 | -.036 |
| Urbanization | | | | | | | | | | 1 | .051 | -.045 | .063 | -.108 | -.774** |
| Home | | | | | | | | | | | 1 | -.040 | -.100 | .174* | -.048 |
| Gun | | | | | | | | | | | | 1 | -.521** | -.013 | .114 |
| Sharp | | | | | | | | | | | | | 1 | .093 | -.086 |
| Home Hours | | | | | | | | | | | | | | 1 | .086 |
| JCF Area | | | | | | | | | | | | | | | 1 |

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

**RQ3.1: How are the risk factors for IPV different based on the victim's employment or the victim's income status?**

The IPV risk factors may be different for employed victims versus unemployed victims and for victims with employment-related income versus victims with no such income. To examine how the risk factors for IPV differ based on victim employment and victim income status (RQ3.1), we tested the hypotheses that the risk factors (Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Estrangement, Infidelity, and Urbanization) for IPV were different for employed victims versus unemployed victims ($H_{1a}$) and for victims with income versus victims with no income ($H_{1b}$) using Pearson Chi-Square tests for the independence. Additionally, t test were done to examine the difference in the mean victim age for employed versus unemployed victims and victims with employment-related income versus victim with no such income. As the employment status for eight victims was unknown, the sample size was 158 victims (N = 158).

***Assumptions.***

Only four of the unemployed victims were male, which violates an assumption of the Chi-Square test for independence that each cell should have more than a five count. Given that 91.3% of the unemployed victims were female, unemployed IPV victims in Jamaica appear to be disproportionately female (See Figure 27).

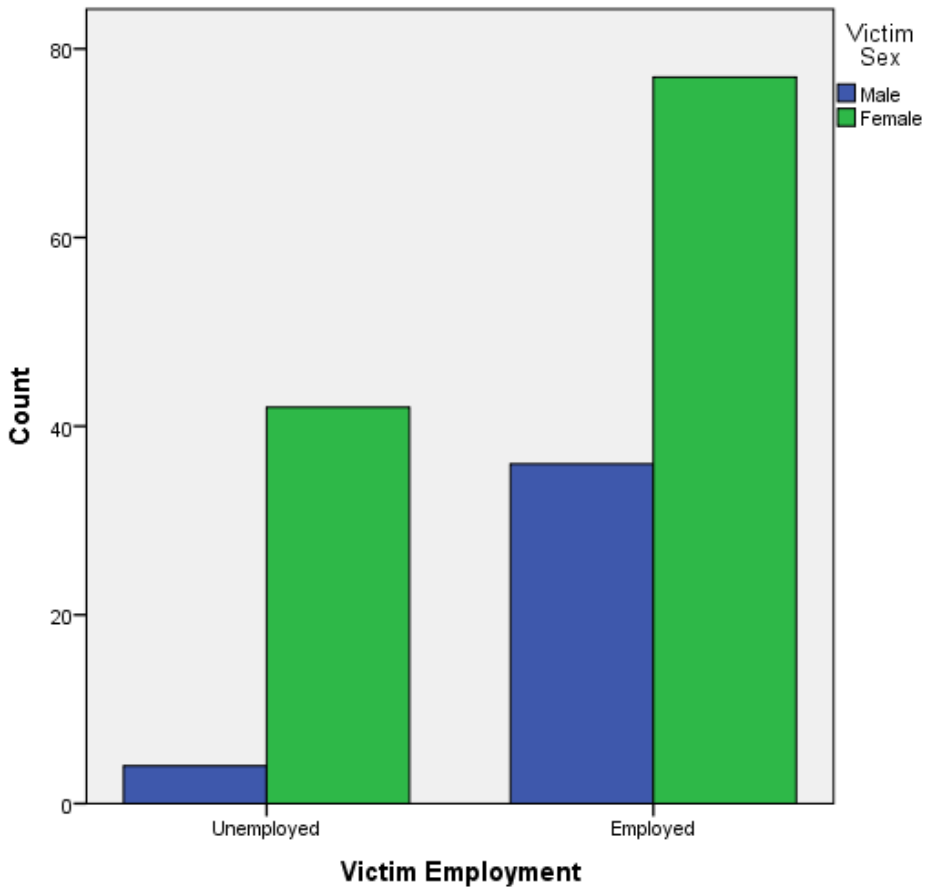


Figure 27: Victim Employment by Victim Sex (N = 166)

***$H_{1a}$: Employed victims are different from unemployed victims on the risk factors for IPV.***

The hypothesis that the IPV risk factors (Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Estrangement, Infidelity, and Urbanization) are different between employed victims and unemployed victims. Only the Chi-Square test for independence between Victim Employment and Victim Sex indicated a significant association, $\chi^2$ (1, n = 158) = 9.481, p = .002. Mantel-Haenszel's $\chi^2$ of 8.229 (p = .004) further confirmed that the two variables were not independent. The effect size as indicated by the Phi statistic was -.245 (p = .000)and based on Cramer's V was .245. Based on Cohen (1988), this is a small-medium effect. Given the effect size of .245, α of

.05, and sample size of 158, the statistical power was .869. The cross-tabulations for Victim Employment by Victim Sex are given in Table 15. For Jamaican IPV victims, being unemployed was associated with being female. The hypothesis ($H_{1a}$) that the risk factors for IPV are different between employed victims and unemployed victims was supported for Victim Sex only.

Table 15: Victim Sex by Victim Employment Cross-tabulation (N = 158)

| Victim Sex | Count | Victim Employment | | Total |
|---|---|---|---|---|
| | | Unemployed | Employed | |
| Male | Count | 4 | 36 | 40 |
| | Expected Count | 11.6 | 28 | 40 |
| | % within Victim Sex | 10.0% | 90.0% | 100.0% |
| | % within Victim Employment | 8.7% | 32.1% | 25.3% |
| | % of Total | 2.5% | 22.8% | 25.3% |
| Female | Count | 42 | 76 | 118 |
| | Expected Count | 34.4 | 83.6 | 118 |
| | % within Victim Sex | 35.6% | 64.4% | 100.0% |
| | % within Victim Employment | 91.3% | 67.9% | 74.7% |
| | % of Total | 26.6% | 48.1% | 74.7% |
| Total | Count | 46 | 112 | 158 |
| | Expected Count | 46 | 112.0 | 158 |
| | % within Victim Sex | 29.1% | 70.9% | 100.0% |
| | % within Victim Employment | 100.0% | 100.0% | 100.0% |
| | % of Total | 29.1% | 70.9% | 100.0% |

To further explore the relationship of Victim Age to Victim Employment, an independent samples t-test was done using the ratio variable Victim Age. The mean age of the 112 employed victims was 33.00 (standard deviation of 10.743) and the mean age of the 46 victims without employment was 32.76 (standard deviation of 14.191). Based on the t-test [$t(156) = .115$, $p = .908$] and Levene's test for equality of variances [F =

4.514, p = .035], the difference in the mean of Victim Age was not statistically significant.

***$H_{1b}$: Victims with income are different from victims with no income on the risk factors for IPV.***

The hypothesis was tested for the categorical variables (Victim Sex, Victim Age Under 30, Offender Age, Marital Status, Cohabitation, Estrangement, and Urbanization). Only the Chi-Square test for independence between Victim Income Status and Victim Sex indicated a significant association, $\chi^2$ (1, n = 158) = 14.435, p = .000. Mantel-Haenszel's $\chi^2$ of 12.897 (p = .000) further confirmed that the two variables were not independent. The effect size as indicated by the Phi statistic was -.302 (p = .000) and by the Cramer's V was .302 (p = .000). Based on Cohen (1988), this is a medium effect. Given the effect size of .302, α of .05, and sample size of 158, the statistical power was .967. The cross-tabulations for Victim Income Status by Victim Sex are given in Table 16. Similar to Victim Employment, having no income was associated with being female.

Table 16: Victim Income Status by Victim Sex Cross-tabulation (N = 158)

| Victim Income Status | Count | Victim Sex | | Total |
|---|---|---|---|---|
| | | Female | Male | |
| No income | Count | 47 | 3 | 50 |
| | % within Victim Income Status | 94.0% | 6.0% | 100.0% |
| | % within Victim Sex | 39.8% | 7.5% | 31.6% |
| | % of Total | 29.7% | 1.9% | 31.6% |
| Income | Count | 71 | 37 | 108 |
| | % within Victim Income Status | 65.7% | 34.3% | 100.0% |
| | % within Victim Sex | 60.2% | 92.5% | 68.4% |
| | % of Total | 44.9% | 23.4% | 68.4% |
| Total | Count | 118 | 40 | 158 |
| | % within Victim Income Status | 74.7% | 25.3% | 100.0% |
| | % within Victim Sex | 100.0% | 100.0% | 100.0% |
| | % of Total | 74.7% | 25.3% | 100.0% |

The Chi-Square test for independence between Victim Income Status and Victim Age Under 30 indicated a significant association, $\chi^2$ (1, n = 158) = 8.096, p = .004. Mantel-Haenszel's $\chi^2$ of 7.106 (p = .008) further confirmed that the two variables were not independent. The effect size as indicated by the Phi statistic was -.226 (p = .004) and by Cramer's V was .226 (p = .004). Based on Cohen (1988), this is a small-medium effect. Given the effect size of .245, α of .05, and sample size of 158, the statistical power was .811. There was a significant association between Victim Income Status and Victim Age Under 30. Ergo, being under 30 years old is significantly associated with the victims not having income.

Table 17: Victim Income Status by Victim Age under 30 Cross-tabulation (N = 158)

| Victim Income Status | | Victim Age Under 30 | | Total |
|---|---|---|---|---|
| | | ≤ 30 | > 30 | |
| No income | Count | 33 | 17 | 50 |
| | % within Victim Income Status | 66.0% | 34.0% | 100.0% |
| | % within Victim Age Under 30 | 42.3% | 21.3% | 31.6% |
| | % of Total | 20.9% | 10.8% | 31.6% |
| Income | Count | 45 | 63 | 108 |
| | % within Victim Income Status | 41.7% | 58.3% | 100.0% |
| | % within Victim Age Under 30 | 57.7% | 78.8% | 68.4% |
| | % of Total | 28.5% | 39.9% | 68.4% |
| Total | Count | 78 | 80 | 158 |
| | % within Victim Income Status | 49.4% | 50.6% | 100.0% |
| | % within Victim Age Under 30 | 100.0% | 100.0% | 100.0% |
| | % of Total | 49.4% | 50.6% | 100.0% |

The hypothesis that the risk factors for IPV are different between victims with income and victims with no income ($H_{1b}$) is supported for the categorical IPV risk factors of Victim Sex and Victim Age Under 30.

To further explore the relationship of the victim's age to the victim's income status, a two-tailed independent samples t-test was done using the related ratio variable Victim Age. The results are presented in Table 18. The mean age of the 108 victims with income was 34.66 (standard deviation of 12.009) and the mean age of the 50 victims with no income was 29.20 (standard deviation of 10.521). Unlike for Victim Employment, there was a significant difference in the mean age [$t(156) = 2.759$, $p = .006$] for victims with income versus victims with no income. This mean difference was confirmed by the Levene's test for equality of variances [$F = .543$, $p = .462$]. The mean age difference was 5.457 years (95% C.I. 1.551 to 9.364 years).

Table 18: Independent Samples t-Test for Victim Age by Victim Income Status (N = 158)

| Equal variances | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 95% C.I. of the Difference | |
| | F | p | t | df | p | Mean Difference | S.E. Difference | Lower | Upper |
| assumed | .543 | .462 | 2.759 | 156 | .006 | 5.457 | 1.978 | 1.551 | 9.364 |
| not assumed | | | 2.897 | 107.956 | .005 | 5.457 | 1.884 | 1.723 | 9.192 |

The eta squared effect size was calculated using the formula demonstrated in Equation 17.

$$\boldsymbol{eta\ squared} = \frac{\boldsymbol{t^2}}{\boldsymbol{t^2} + (\boldsymbol{N1} + \boldsymbol{N2} - \boldsymbol{2})} \tag{17}$$

The effect size was .48 indicating a large effect (Cohen, 1988). About .48 of the variance in Victim Income Status is attributed to Victim Age. Given the effect size of .48, α of .05, and sample size of 158, the statistical power was .879.

As the victims with income included three pensioners whose ages were all outliers for the distribution, the independent samples t-test was done with the outliers excluded from the analysis. Without the outliers, the mean age of the 105 victims with income was 33.54 years with a standard deviation of 10.113 years. Still, there was a statistically significant difference in the mean age [t(153) = 2.467, p = .015] for victims with income and victims with no income. The mean age difference was 4.343 years (95% C.I. of .865 to 7.821 years).

***Summation.***

The research question (3.1) was to examine how the IPV risk factors differed between employed victims versus unemployed victims and victims with income versus victims with no income. Chi Square tests for independence revealed significant statistical associations between Victim Sex and Victim Employment and between Victim Sex and Victim Income Status. Being female is a risk factor for IPV. For Jamaican IPV victims, being unemployed and having no income were significantly associated with being female. However, the assumption that all cells in a Chi Square test have at least a five-count was violated. With three victims being pensioners, a Chi Square test for independence revealed a significant statistical association between Victim Age Under 30 and Victim Income Status. For Jamaican IPV victims, having no income was significantly associated with being under 30 years old. A two-tailed independent samples t-test revealed that there was a significant difference of 5.47 years in the mean age for victims with income versus victims with no income. In sum, employed victims and unemployed victims are different based on victim sex. Victims with income and victims with no income are different based on victim sex, victim age under 30, and mean victim age.

**RQ3.2: Can the risk factors for IPV predict victim employment or victim income status in Jamaica?**

To examine if the risk factors for IPV can predict victim employment or victim income status in Jamaica (RQ3.2), the hypotheses that the IPV risk factors decrease the odds of victim employment ($H_{2a}$) and victims having income ($H_{2b}$) were tested.

***Assumptions.***

Due to the missing information about the employment and income of eight victims, these victims were not included in the regression analyses for Victim Employment. Regression may perform best with a sample size of 15 cases per predictor (Stevens, 1996). There are only six predictors for victim employment and victims having income (as outcome variables), so the sample size of 158 victims was more than adequate.

***$H_{2a}$: The IPV risk factors decrease the odds of victim employment.***

Of the 166 victims, 112 victims were employed, self-employed or students. There were 46 unemployed victims. Eight (4.8%) victims were excluded as their employment status was not known. The final sample size for the analysis was 158 (N = 158).

Due to multicollinearity, Cohabitation was not included in the regression analyses. The correlation matrix indicated that collinearity was not a concern for the remaining six predictor variables. The revised predictive model for victim employment is given in Figure 28.

***Model 1***

Binary logistic regression was performed to analyze the salience of the IPV risk factors for predicting the probability of victim employment.

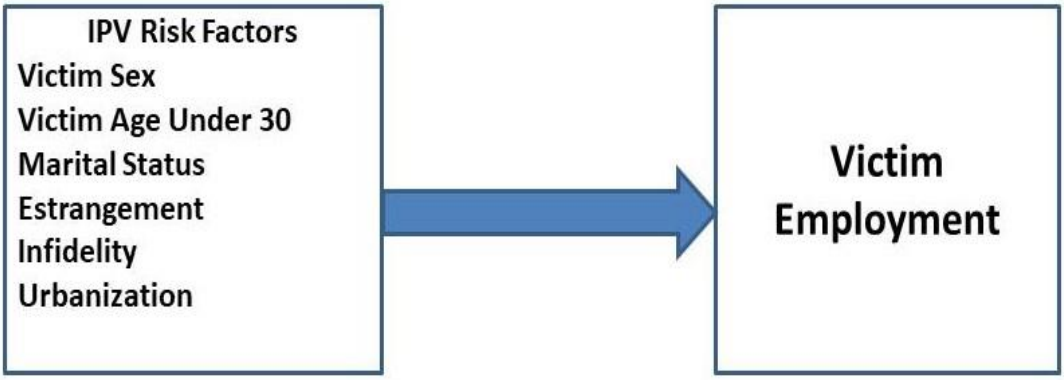


Figure 28: Revised Predictive Model of Victim Employment using the IPV Risk Factors

Based on the Omnibus Test of Model Coefficients, the full model (Model 1) approached but did not achieve statistical significance, $\chi^2$ (6, n = 158) = 12.171, p = .058. The Hosmer and Lemeshow $\chi^2$ (7, n = 158) = 7.372 was not significant (p = .391). Within the model, Victim Sex was the only variable that achieved statistical significance with a Wald statistic of 8.040 (p = .005). The results are presented in Table 19.

Table 19: Model 1 Binary Logistic Regression Predicting the Odds of Victim Employment by IPV Risk Factors (N = 158)

| Model 1 | β | S.E. | Wald | df | p | Odds Ratio | 95% C.I. for Odds Ratio | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Victim Sex | -1.619 | .571 | 8.040 | 1 | .005 | .198 | .065 | .607 |
| Victim Age Under 30 | -.185 | .386 | .229 | 1 | .632 | .831 | .390 | 1.770 |
| Marital Status | .289 | .394 | .538 | 1 | .463 | 1.336 | .617 | 2.892 |
| Estrangement | .206 | .427 | .234 | 1 | .629 | 1.229 | .532 | 2.840 |
| Infidelity | .157 | .503 | .098 | 1 | .755 | 1.170 | .437 | 3.134 |
| Urbanization | -.142 | .420 | .115 | 1 | .734 | .867 | .381 | 1.975 |
| Constant | 2.192 | .646 | 11.531 | 1 | .001 | 8.957 | | |

***Model 2***

The variables that did not achieve statistical significance were eliminated and the logistic regression was executed using only Victim Sex as a predictor variable (Model 2). Based on the Omnibus Test of Model Coefficients, Model 2 achieved statistical significance, $\chi^2$ (1, n = 158) = 10.949, p = .001. Table 20 provides a summary of how Model 2 performed. As expected, Victim Sex achieved statistical significance with a Wald statistic of 8.176 (p = .004). The statistical power was .989. The resulting regression equation is given in Equation 18.

$$\text{Log(Victim Employment)} = 2.197 - 1.604\ \text{(Victim Sex)} \qquad (18)$$

Female victims had .201 odds of being employed compared to male victims. Using the inverse, male victims are 4.98 times more likely than female victims to be employed.

Table 20: Model 2 Binary Logistic Regression Predicting the Odds of Victim Employment by Victim Sex (N = 158)

| Model 2 | β | S.E. | Wald | df | p | Odds Ratio | 95% C.I. for Odds Ratio | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Victim Sex | -1.604 | .561 | 8.176 | 1 | .004 | .201 | .067 | .604 |
| Constant | 2.197 | .527 | 17.380 | 1 | .000 | 9.000 | | |

The hypothesis that the IPV risk factors decrease the odds of Victim Employment is supported for Victim Sex only. In sum, for Jamaican IPV victims, being female decreases the odds of having employment.

***$H_{2b}$: The IPV risk factors decrease the odds of victims having income.***

Of the 166 victims, 108 victims had employment-related income due to being employed, self-employed, or pensioned. By contrast, 50 victims had no employment-related income. For eight of the victims, their employment-related income status was unknown. These victims were excluded from this analysis. Thus, the final sample size for this analysis was 158. As Cohabitation was removed from the model due to its collinearity with other variables, the revised predictive model for victim income status is given in Figure 29.

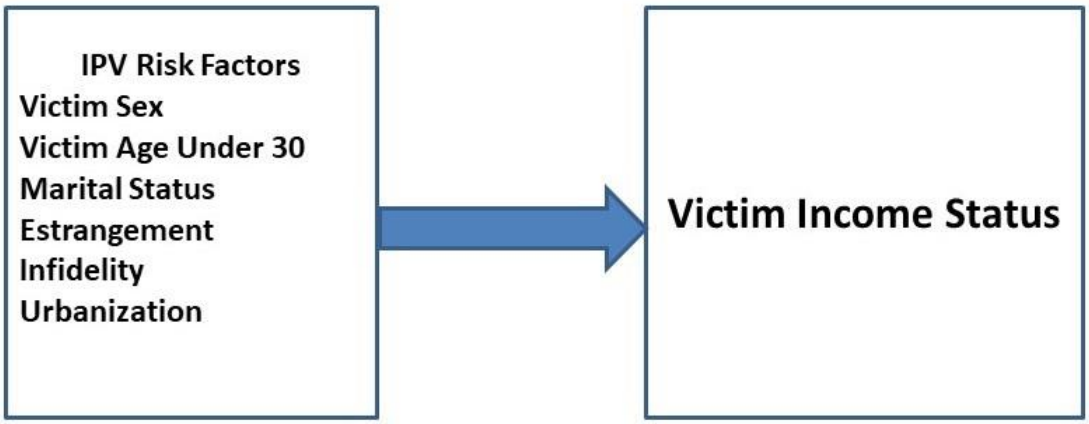


Figure 29: Revised Predictive Model of Victim Income Status using the IPV Risk Factors

***Model 3***

Logistic regression was performed to analyze the salience of the IPV risk factors for predicting the probability of the victim with employment-related income. The results were dissimilar to those found for victim employment. Based on the Omnibus Test of Model Coefficients, the full model was statistically significant, $\chi^2$ (6, n = 158) = 23.108, p = .001. The Hosmer and Lemeshow $\chi^2$ (8, n = 158) = 16.343 was not significant (p =

.038). The Nagelkerke $R^2$ indicated that the model explains about 19.1% of the variance in the probability of the victim having employment-related income. By contrast, the Cox & Snell $R^2$ indicated that 13.6% of the variance was explained. Table 21 provides a summary of how the full model (Model 3) performed.

Within the model, Victim Sex and Victim Age Under 30 were the only variables that achieved statistical significance. The Wald statistic for Victim Sex was 9.731(p = .002), while the Wald Statistic for Victim Age Under 30 was 4.056 (p = .044). Victim Sex and Victim Age Under 30 emerged as salient and independent predictors of Victim Income Status.

Table 21: Model 3 Binary Logistic Regression Predicting Victim Income Status by IPV Risk Factors (N = 158)

| Variables | β | S.E. | Wald | df | p | Odds Ratio | 95% C.I. for Odds Ratio | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Victim Sex | -1.990 | .638 | 9.731 | 1 | .002 | .137 | .039 | .477 |
| Victim Age Under 30 | -.787 | .391 | 4.056 | 1 | .044 | .455 | .211 | .979 |
| Marital Status | .159 | .399 | .158 | 1 | .691 | 1.172 | .537 | 2.560 |
| Estrangement | -.129 | .421 | .094 | 1 | .759 | .879 | .386 | 2.005 |
| Infidelity | .081 | .504 | .026 | 1 | .873 | 1.084 | .404 | 2.911 |
| Urbanization | -.067 | .424 | .025 | 1 | .874 | .935 | .407 | 2.146 |
| Constant | 2.849 | .724 | 15.489 | 1 | .000 | 17.276 | | |

***Model 4***

The variables that did not achieve statistical significance were eliminated and the logistic regression was executed using only Victim Sex and Victim Age Under 30 as predictors (Model 4). Based on the Omnibus Test of Model Coefficients, Model 4 achieved statistical significance, $\chi^2$ (2, n = 158) = 122.757, p = .000. Table 22 provides a summary of how Model 4 performed. As expected, Victim Sex achieved statistical

significance with a Wald statistic of 9.825 (p = .002). Victim Age Under 30 achieved statistical significance with a Wald statistic of 5.341 (p = .021). The resulting regression equation in demonstrated in Equation 19.

$$\text{Log(Victim Employment)} = 2.887 - 1.989(\text{Victim Sex}) - .859(\text{Victim Age Under 30}) \quad (19)$$

Table 22: Model 4 Binary Logistic Regression Predicting Victim Income Status by Victim Sex and Victim Age Under 30 (N = 158)

| Model 4 | β | S.E. | Wald | df | p | Odds Ratio | 95% C.I. for Odds Ratio | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Victim Sex | -1.989 | .635 | 9.825 | 1 | .002 | .137 | .039 | .475 |
| Victim Age Under 30 | -.859 | .372 | 5.341 | 1 | .021 | .424 | .204 | .878 |
| Constant | 2.887 | .635 | 20.671 | 1 | .000 | 17.946 | | |

Holding all other factors constant, female victims had a .137 odds of having employment-related income compared to male victims. Using the inverse, male victims are 7.299 times more likely than female victims to have employment-related income. Holding all other factors constant, victims who were 30 years old and younger had .424 odds of having employment-related income. That is, victims over age 30 were 2.358 times more likely to have employment-related income.

The hypothesis that the IPV risk factors decrease the odds of the victim having employment-related income is supported for Victim Sex and Victim Age Under 30 only. In sum, being female and being under age 30 decreases the odds of the IPV victim having employment-related income.

**RQ3.3: How are victim employment and victim income status related to the IPV murder in Jamaica?**

Of the 166 victims, 70 (42.2%) were killed. Due to missing information about eight (4.2%) victims' employment, only 158 victims (N = 158) were included in this analysis. Of the eight missing cases, only one person was murdered. Of the 158 victims, 69 were murdered and 89 were shot or gravely assaulted without fatality.

***Assumptions.***

Given that there were only 15 predictors (using JCF Area as a categorical variable) for IPV Murder, the sample size of 158 was less than ideal (Stevens, 1996).

***$H_{3a}$: Employed victims have lower odds of IPV murder than unemployed victims.***

Based on routine activities theory, victim employment decreases the odds of IPV murder as it decreases the temporal and geospatial convergence of the victim with the offender absent a capable guardian. Thus, logistic regression was used to test the hypothesis that the Victim Employment, the IPV risk factors, and the incident characteristics can predict the odds of IPV Murder. The revised predictive model of IPV murder is given in Figure 30.

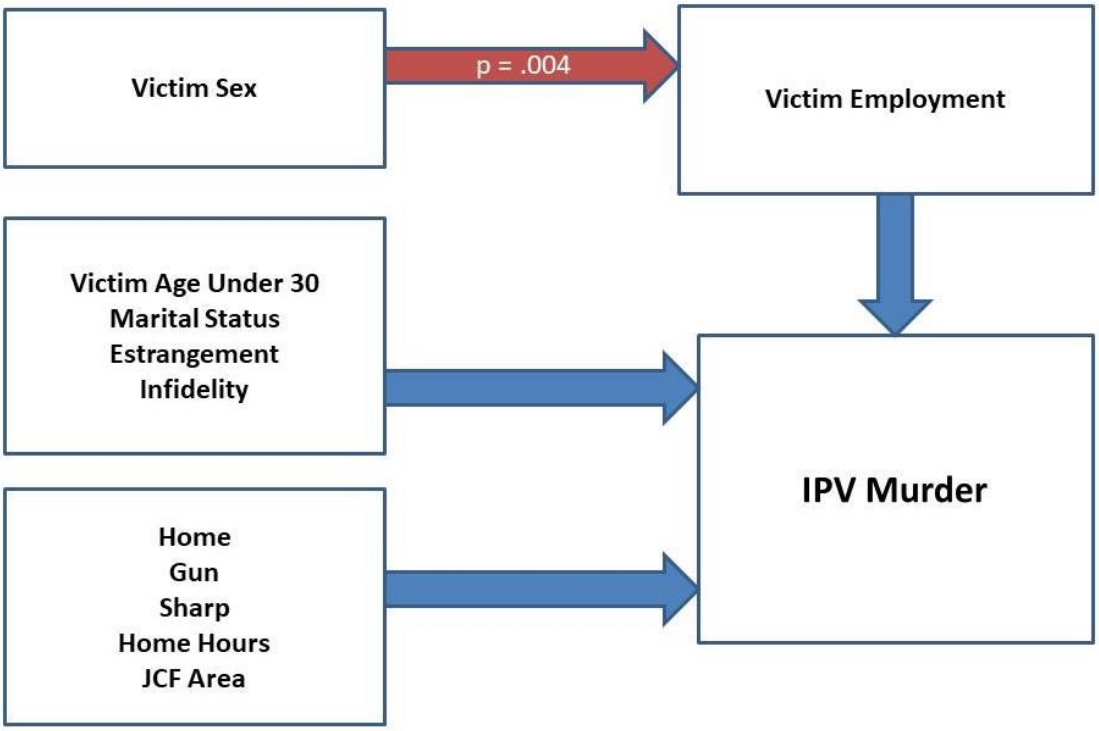


Figure 30: Revised Predictive Model of IPV Murder using Victim Employment, IPV Risk Factors, and Incident Characteristics

***Model 5***

For Model 5, IPV Murder was regressed on Victim Employment alone. Based on the Omnibus Test of Model Coefficients, Model 5 was not statistically significant, $\chi^2$ (1, n = 158) = 2.112, p = .146. Victim Employment alone was not useful for predicting the odds of IPV Murder for Jamaican victims.

***Model 6***

Logistic regression was performed to analyze the salience of victim employment, the IPV risk factors, and the incident characteristics for predicting the probability of IPV murder. For Model 6, all the predictor variables were entered. Based on the Omnibus Test of Model Coefficients, Model 6 approached statistical significance, $\chi^2$(15, n = 158) = 24.711, p = .054. The Hosmer and Lemeshow $\chi^2$(8, n = 158) = 3.810 (p = .641) indicated

that the model needed to be improved. Within the model, the Wald statistic confirmed that Victim Employment did not achieve statistical significance (p = .188). However, Gun (p = .020), Sharp (p = .000), JCF Area III (p = .036), and JCF Area V (p = .047) did achieve statistical significance; while Estrangement (p = .056) and JCF Area II (p = .055) approached statistical significance. Table 23 provides a summary of how Model 6 performed.

Model

Table 23: Model 6 Binary Logistic Regression Predicting the Odds of IPV Murder by Victim Employment, IPV Risk Factors, and Incident Characteristics (N = 158)

| Variables | β | S.E. | Wald | df | p | Odds Ratio | 95% C.I. for Odds Ratio | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Victim Employment | .558 | .423 | 1.736 | 1 | .188 | 1.747 | .762 | 4.006 |
| Victim Sex | .239 | .439 | .295 | 1 | .587 | 1.269 | .537 | 3.003 |
| Victim Age Under 30 | -.028 | .387 | .005 | 1 | .942 | .972 | .456 | 2.074 |
| Marital Status | -.187 | .376 | .248 | 1 | .619 | .829 | .397 | 1.733 |
| Estrangement | -.860 | .451 | 3.644 | 1 | .056 | .423 | .175 | 1.023 |
| Infidelity | .470 | .471 | .995 | 1 | .319 | 1.599 | .636 | 4.025 |
| Urbanization | -1.082 | .690 | 2.460 | 1 | .117 | .339 | .088 | 1.310 |
| Home | .028 | .435 | .004 | 1 | .949 | 1.028 | .438 | 2.412 |
| Gun | 1.449 | .622 | 5.430 | 1 | .020 | 4.257 | 1.259 | 14.399 |
| Sharp | 1.856 | .521 | 12.693 | 1 | .000 | 6.399 | 2.305 | 17.767 |
| Home Hours | -.101 | .387 | .068 | 1 | .794 | .904 | .423 | 1.930 |
| JCF Area | | | 5.055 | 4 | .282 | | | |
| JCF Area I | 1.163 | .803 | 2.096 | 1 | .148 | 3.199 | .663 | 15.439 |
| JCF Area II | 1.738 | .907 | 3.669 | 1 | .055 | 5.683 | .960 | 33.633 |
| JCF Area III | 1.935 | .925 | 4.375 | 1 | .036 | 6.925 | 1.130 | 42.460 |
| JCF Area V | 1.609 | .809 | 3.953 | 1 | .047 | 4.996 | 1.023 | 24.394 |
| Constant | -2.477 | .932 | 7.060 | 1 | .008 | .084 | | |

***Model 7***

To achieve the most parsimonious model, Model 7, the backwards elimination method was used. After 12 steps, Model 7 retained only Gun and Sharp as predictors of

the odds of IPV Murder. The regression coefficients for all the steps are given in Appendix D. Table 24 provides a summary of how Model 7 performed. Based on the Omnibus Test of Model Coefficients, Model 7 achieved statistical significance, $\chi^2(2, n = 158) = 13.273$, $p = .001$. The Hosmer and Lemeshow $\chi^2(1, n = 158) = .000$ ($p = 1.000$) also indicated that the model was a good fit. Based on the Nagelkerke $R^2$, Model 7 explained 10.8% of the variance in the odds of IPV Murder. By contrast, the Cox and Snell $R^2$ indicated that 8.1% of the variance was explained.

Within Model 7, Sharp emerged as the most potent predictor of IPV Murder. Holding all other factors constant, if an offender used a sharp or piercing weapon, the odds of the victim being murdered was 4.773 greater than if no sharp or piercing weapon was used. Holding all other factors constant, if the offender used a gun, the odds of the victim being murdered was 3.714 greater than if no gun was used. The resulting regression equation in demonstrated in Equation 20.

$$\text{Log(IPV Murder)} = 1.312(\text{Gun}) + 1.563(\text{Sharp}) - 1.455 \qquad (20)$$

Table 24: Model 7 Binary Logistic Regression Predicting the Odds of IPV Murder by Gun and Sharp (N = 166)

| Model 7 | β | S.E. | Wald | df | p | Odds Ratio | 95% C.I. for Odds Ratio | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Gun | 1.312 | .565 | 5.384 | 1 | .020 | 3.714 | 1.226 | 11.252 |
| Sharp | 1.563 | .468 | 11.137 | 1 | .001 | 4.773 | 1.906 | 11.951 |
| Constant | -1.455 | .420 | 12.020 | 1 | .001 | .233 | | |

***$H_{3b}$: Victims with income have lower odds of IPV murder than victims with no income.***

Based on control balance theory, victims with employment-related income (i.e., victims who are employed, self-employed, or receiving a pension) have more control over the couple's resources than do victims with no income. Consequently, as the offender attempts to maintain a surplus of control, victims with income will have greater odds of IPV murder. Logistic regression was used to test the hypothesis that the Victim Income Status, the IPV risk factors, and the incident characteristics can predict IPV Murder. The revised predictive model is given in Figure 31.

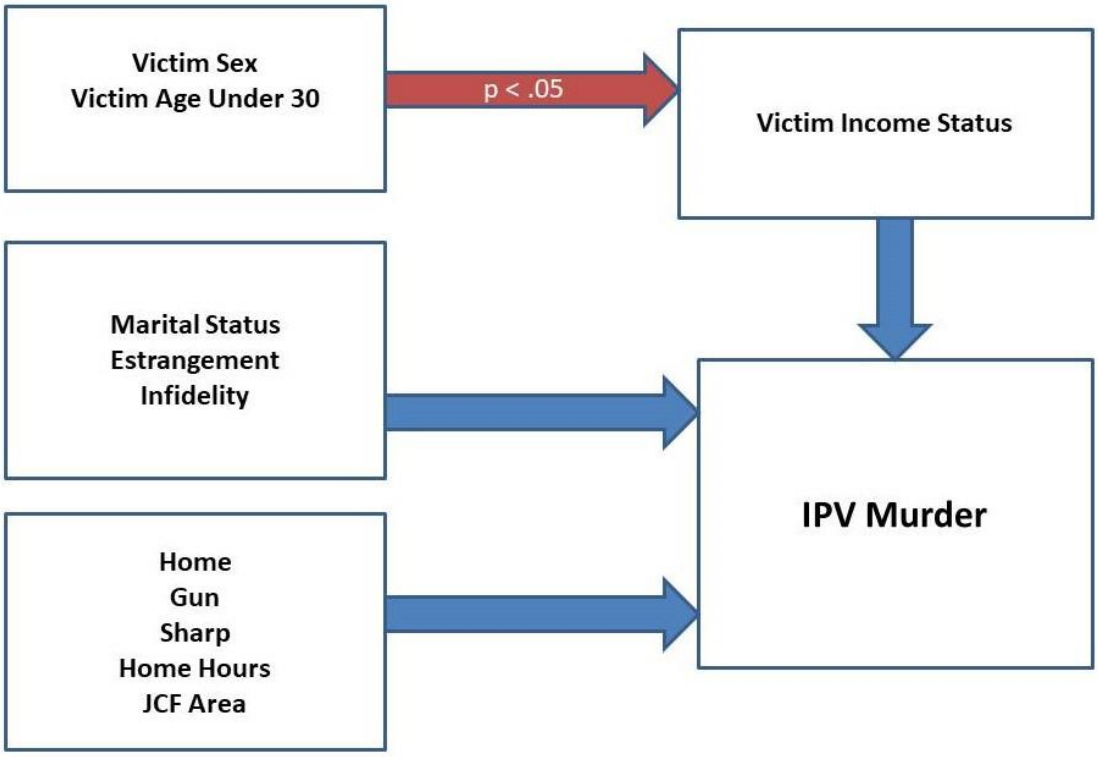


Figure 31: Revised Predictive Model of IPV Murder using Victim Income Status, IPV Risk Factors, and Incident Characteristics

***Model 8***

For Model 8, IPV Murder was regressed on Victim Income Status. Based on the Omnibus Test of Model Coefficients, Model 8 was not statistically significant, $\chi^2$ (1, n = 158) = 1.768, p = .184. Victim Income Status alone was not useful for predicting the odds of IPV Murder for Jamaican victims.

***Model 9***

Logistic regression was performed to analyze the salience of Victim Income Status, the IPV risk factors, and the incident characteristics for predicting the probability of IPV Murder. JCF Area was used in its categorical form. All the variables were entered simultaneously. Based on the Omnibus Test of Model Coefficients, Model 9 approached statistical significance, $\chi^2$(15, n = 158) = 24.274, p = .061. The Hosmer and Lemeshow $\chi^2$(8, n = 158) was 3.597 (p = .641) indicating that the model needed improvement. Within the model, the Wald statistics confirmed that Victim Income Status did not achieve statistical significance (p = .252). However, Gun (p = .019), Sharp (p = .000), JCF Area III (p = .035), and JCF Area V (p = .048) achieved statistical significance; while Estrangement (p = .072) and JCF Area II (p = .0615) approached statistical significance. Table 25 provides a summary of how Model 9 performed.

Table 25: Model 9 of the Binary Logistic Regression Predicting the Odds of IPV Murder by Victim Income Status, IPV Risk Factors, and Incident Characteristics (N = 158)

| Variables | β | S.E. | Wald | df | p | Odds Ratio | 95% C.I. for Odds Ratio | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Lower | Upper |
| Victim Income Status | .483 | .421 | 1.314 | 1 | .252 | 1.621 | .710 | 3.701 |
| Victim Sex | .229 | .441 | .269 | 1 | .604 | 1.257 | .530 | 2.985 |
| Victim Age Under 30 | .025 | .393 | .004 | 1 | .950 | 1.025 | .475 | 2.213 |
| Marital Status | -.169 | .375 | .203 | 1 | .652 | .844 | .405 | 1.762 |
| Estrangement | -.806 | .448 | 3.241 | 1 | .072 | .446 | .186 | 1.074 |
| Infidelity | .471 | .471 | 1.000 | 1 | .317 | 1.601 | .636 | 4.030 |
| Urbanization | -1.073 | .689 | 2.421 | 1 | .120 | .342 | .089 | 1.321 |
| Home | .026 | .437 | .003 | 1 | .953 | 1.026 | .436 | 2.415 |
| Gun | 1.458 | .621 | 5.509 | 1 | .019 | 4.299 | 1.272 | 14.530 |
| Sharp | 1.866 | .522 | 12.771 | 1 | .000 | 6.464 | 2.323 | 17.988 |
| Home Hours | -.081 | .386 | .043 | 1 | .835 | .923 | .433 | 1.966 |
| JCF Area | | | 5.230 | 4 | .264 | | | |
| JCF Area I | 1.087 | .793 | 1.877 | 1 | .171 | 2.965 | .626 | 14.041 |
| JCF Area II | 1.691 | .903 | 3.513 | 1 | .061 | 5.428 | .925 | 31.831 |
| JCF Area III | 1.968 | .932 | 4.456 | 1 | .035 | 7.159 | 1.151 | 44.520 |
| JCF Area V | 1.602 | .810 | 3.915 | 1 | .048 | 4.964 | 1.015 | 24.271 |
| Constant | -2.455 | .959 | 6.551 | 1 | .010 | .086 | | |

***Model 10***

To achieve the most parsimonious model, Model 10, the backwards elimination method was used. After 12 steps as detailed in Appendix D, Model 10 retained only Gun and Sharp as predictors of the odds of IPV Murder and so was identical to Model 7. The findings from Model 7 apply.

**RQ3.4: How are victim employment and victim income status related to the severity of IPV in Jamaica?**

The impact of victim employment and victim income on the severity of IPV were examined. Rather than the dichotomy of IPV Murder, IPV Severity was measured as a scale variable. In accordance with routine activities theory, victim employment should reduce the IPV Severity. By contrast, according to control theory, IPV Severity would be

increased due to the victim having employment-related income. Victim Age was used as a continuous variable. JCF Area was transformed into dummy variables with JCF Area IV as the reference group.

***Measuring the Severity of IPV in Jamaica Survey.***

The severity of each IPV incident was measured via the online survey *Measuring the Severity of IPV in Jamaica*. This is a pilot instrument, and so there was no pre-established reliability or validity. Anonymous respondents consented online. Respondents were asked to rate the severity of the violence in each narrative using a Likert scale of zero (0) to five (5). A zero indicated that there is no severity at all; a one indicated the least severity and severity increased to five. The survey was open for a two-month period. In actuality, the target sample size of 190 persons was achieved in four days. Three hundred and forty-six persons consented to the survey. Twenty-two persons consented and started the survey but did not go pass the consent or demographic questions. These persons had to be excluded from this summary as they did not rate even one narrative. Thirteen persons were not of Jamaican heritage, an exclusion criterion. The final number of respondents was 311. These 311 respondents continued on to rate the severity of the violence in at least one narrative. Note that not all 311 persons completed the survey in entirety (i.e., they did not rate 25 narratives). This is understandable given the graphic nature of the narratives of the police reports and the voluntary nature of participation in research. Importantly, the target of getting at least 30 respondents to rate each narrative was achieved for all except two narratives, which were rated 23 times and 29 times respectively.

***Survey Respondents***

Of the 311 respondents, 188 (60.5%) were women and 123 (39.5%) were men. The respondents' ages ranged from 18 to 79 years with a mean age of 40.1 years with a standard deviation of 11.9 years.

The vast majority (184 respondents; 59.2%) of the respondents identified as "I am a native (born) Jamaican, but I now reside in another country". The next highest (88 respondents; 28.3%) category was "Yes. I am a native (born) Jamaican residing in Jamaica". Thirty-nine (12.5%) respondents identified as "Yes. I was not born in Jamaica, but I have Jamaican parents or grandparents". Figure 32 presents the heritage of the respondents.

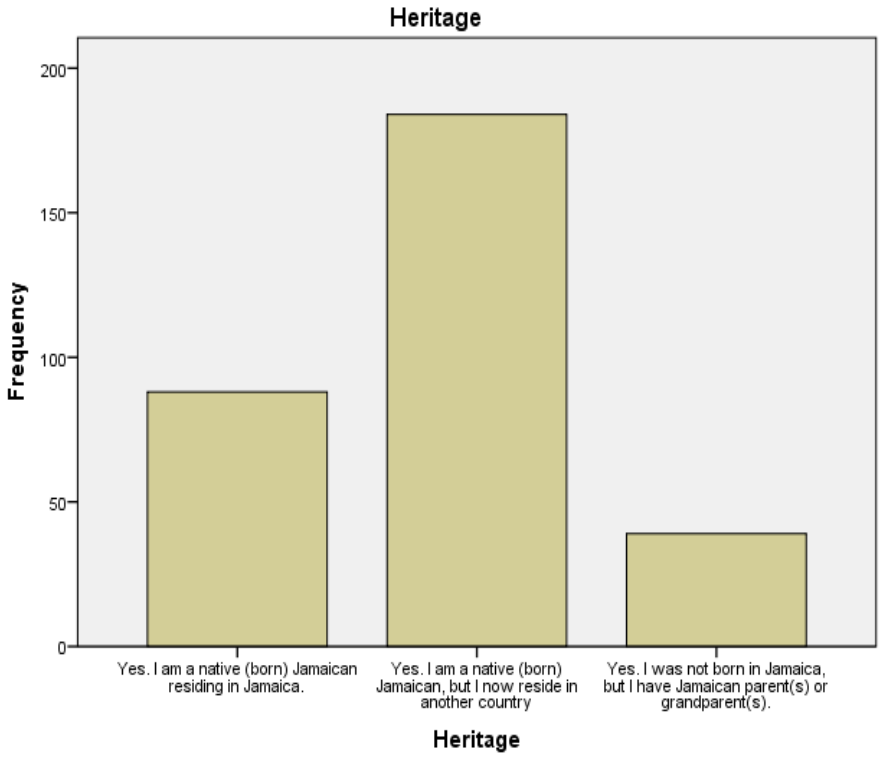


Figure 32: Jamaican Heritage of Survey Respondents (N = 311)

For the survey respondents, the modal occupation was ‘professional’. Table 26 uses a modified version of the International Standard Classification of Occupations Version 08 (International Labour Organization, ILO, 2012) to present a classification of the self-reported occupations of the survey respondents.

Table 26: Current Occupation of Survey Respondents (N = 311)

| Occupation | Frequency | Percent | Valid Percent |
|---|---|---|---|
| ISCO Occupation | | | |
| Managers | 30 | 9.6 | 12.1 |
| Professionals | 111 | 35.7 | 44.8 |
| Technicians and Associate Professionals | 28 | 9.0 | 11.3 |
| Service and Sales Workers | 26 | 8.4 | 10.5 |
| Skilled Agricultural, Forestry, and Fishery Workers | 2 | .6 | .8 |
| Craft and Related Trades Workers | 26 | 8.4 | 10.5 |
| Elementary Occupations | 11 | 3.5 | 4.4 |
| Armed Forces | 14 | 4.5 | 5.6 |
| Subtotal | 248 | 79.7 | 100.0 |
| Other Occupations | | | |
| Other Occupation (Cannot Classify) | 29 | 9.3 | |
| Student | 21 | 6.8 | |
| Unemployed | 8 | 2.6 | |
| Retired | 5 | 1.6 | |
| Subtotal | 63 | 20.3 | |
| Total | 311 | 100.0 | |

***Survey Results.***

Due to limited information about the IPV in the police reports, 11 narratives were not included in the online survey. Appendix C indicates which narratives were included and which were excluded. Thus, there were 155 narratives presented in the online survey. As previously discussed, there was great variability in the word counts of these narratives. However, as seen by the line graph in Figure 33, the IPV Severity score did not appear to be a function of the word count.

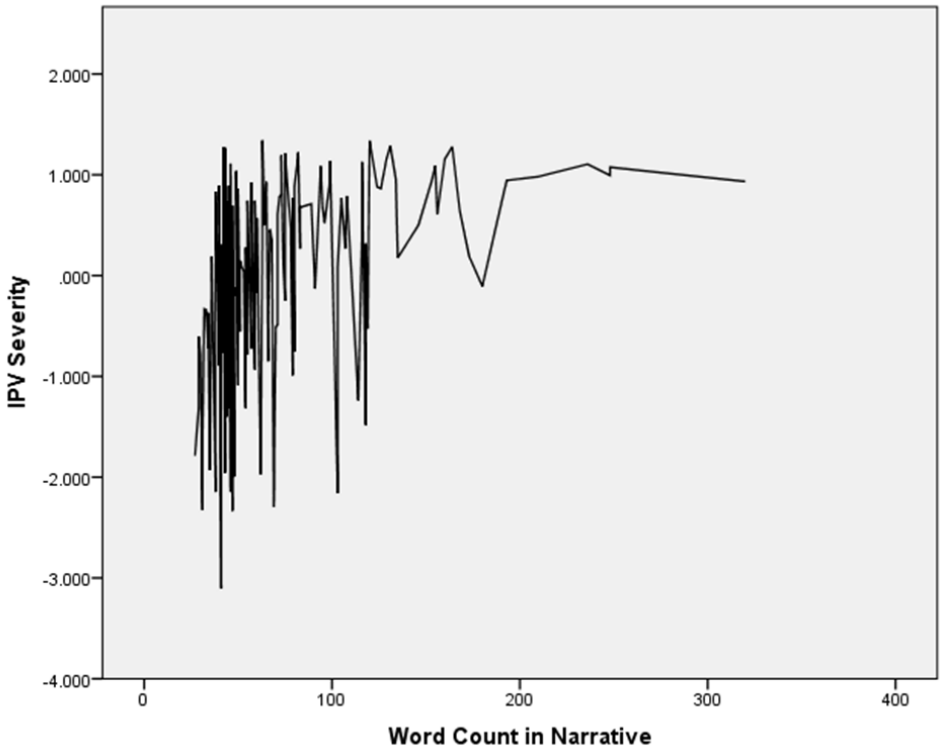


Figure 33: IPV Severity Score by Word Count in Narrative (N= 158)

Based on the respondents' responses, the mean score was taken to be the IPV Severity raw score. As indicated by Figure 34, these raw scores ranged from 3.342 to 4.976 with a mean of 4.482 (standard deviation of .365741). The distribution was slightly negatively skewed with skewness of -.774 (standard error of .195) and kurtosis of -.124 (standard error of .387). The Kolmogorov-Smirnov was .109 (p = .000) and the Shapiro-Wilk was .931 (p = .000). One case was an outlier with raw score of 3.342, but it was not an extreme outlier.

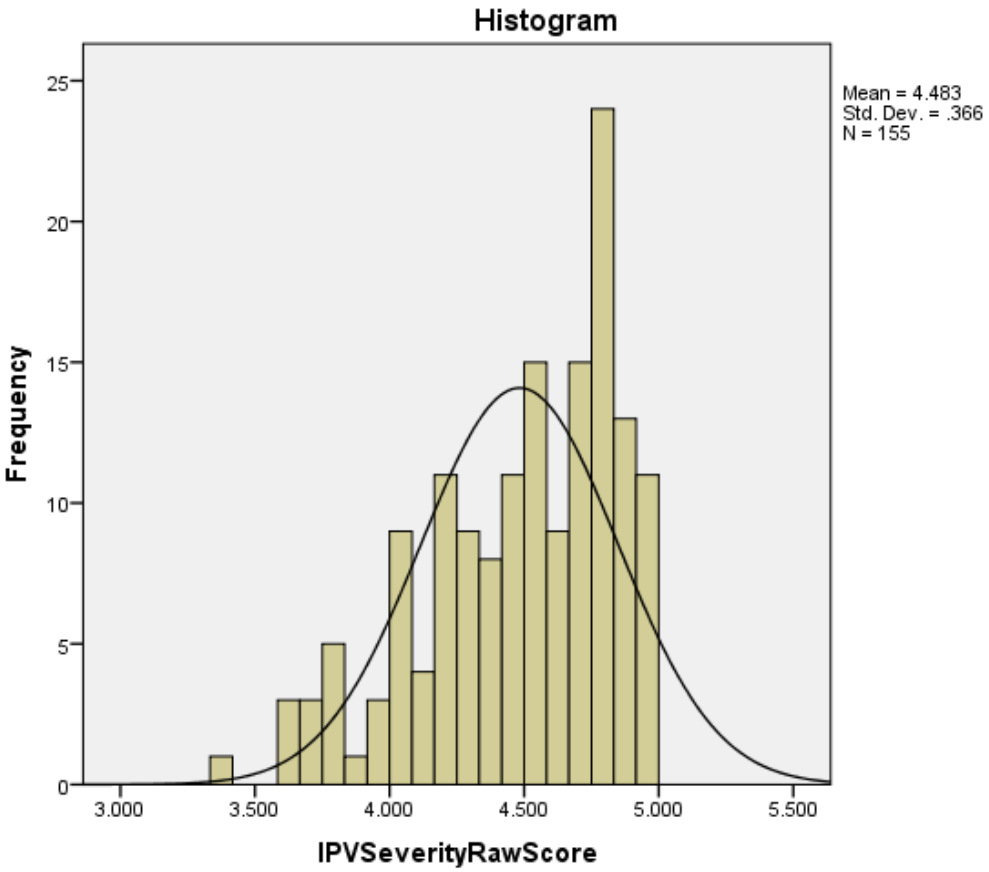


Figure 34: Distribution of the IPV Severity Raw Scores (N = 155)

For data analysis, the scores were normalized using z-scores. As seen in Figure 35, for the normalized distribution IPV Severity the z-scores (N = 155), the range was -3.104 to 1.342. The mean was .000 with a standard error of the mean of .080. The standard deviation was .995. As with the raw scores, the distribution was negatively skewed with skewness of -.774 (standard error of .195) and kurtosis of -.124 (standard error of .387). The Kolmogorov-Smirnov was .109 (p = .000) and the Shapiro-Wilk was .931 (p = .000).

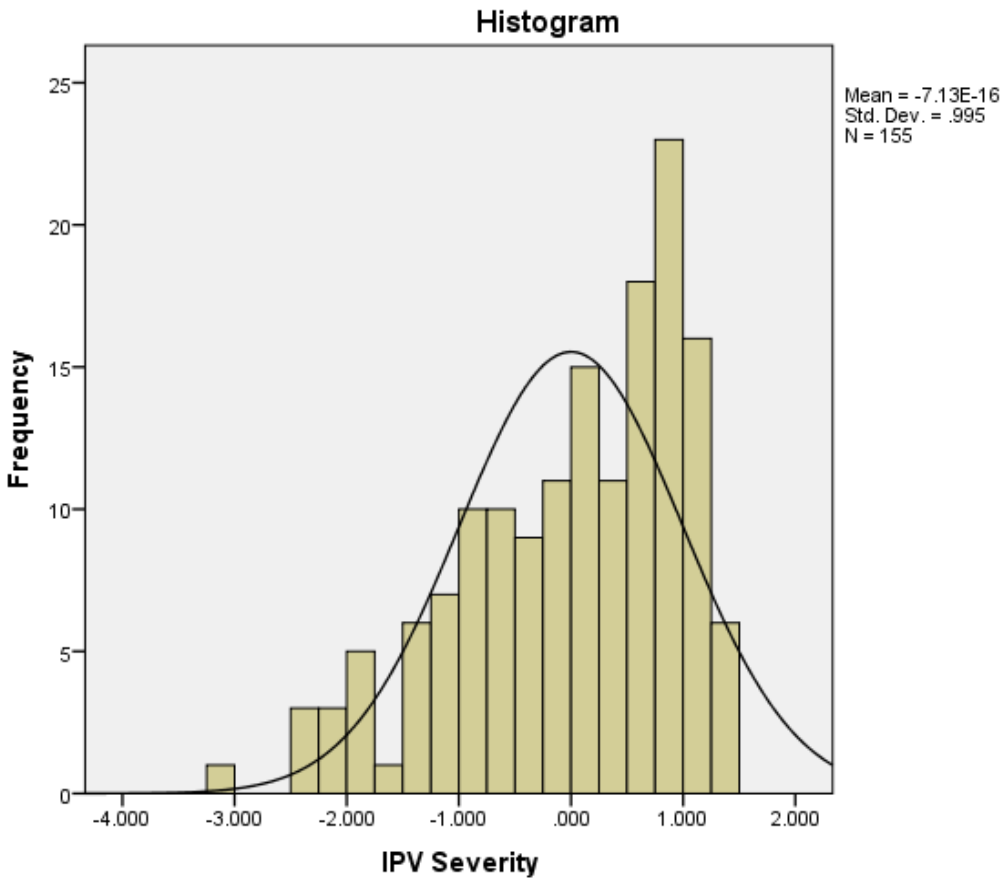


Figure 35: Histogram of Standardized IPV Severity Scores (N = 155)

***Sample for Regression on IPV Severity.***

Although there were 155 victims with an IPV Severity score, eight (5.2%) victims were excluded from the regression analyses due to lack of information regarding their employment status and employment-related income. For the 147 victims (N = 147) included in the linear regression, the mean score for IPV Severity was .025 with a standard deviation of 1.003. Most of the victims (102; 69.4%) were employed. These victims were employed, self-employed, or students. Ninety-nine (67.3%) victims had employment-related income. These victims were employed, self-employed, or receiving a pension. The vast majority (107; 72.8%) were female. Roughly half (76; 51.7%) of the victims were over 30 years old. Almost half (69; 46.9%) of the victims were married to

the offender. More than one of every four (41; 27.9%) of the victims were estranged from the offender. Infidelity of one of the parties was an indicated for 23 (15.6%) of the victims. Most (108; 73.5%) of the victims resided in a rural area. Most (110; 74.8%) of the victims were attacked in a private home. Most (95; 64.6%) of the victims were attacked during traditional home hours. The majority (85; 57.8%) of victims were attacked by offenders who used a sharp or piercing weapon. By comparison, 17.0% (25) of the victims were attacked by offenders who used a gun.

***Assumptions.***

Linear regression assumes that (a) there is an adequate sample size given the number of predictors; (b) the continuous variables are normally distributed and not overly influenced by outliers; (c) the relationship between the independent variable and each continuous dependent variable is linear; (d) there is no severe multicollinearity between any two of the predictor variables; (e) the residuals are independent; (f) there is homoscedasticity or constancy in variance); and (g) the errors are normally distributed and independent. To begin, the data was examined for congruence with the assumptions of regression.

***Sample Size***

The final sample size was 147 victims. Twelve predictors were included in the predictive model. The sample size was less than Stevens' (1996) recommended sample size of 15 cases per predictor. Still, given that the sample size was large and linear regression is a robust technique, this violation of the assumption should not have severely tainted the results of the linear regression analyses.

***Normality and Outliers***

Regression assumes that the scale variables are normally distributed. As previously reported, Victim Age and IPV Severity were not normally distributed. Linear regression is highly sensitive to outliers which may critically alter the regression slope. Also as previously reported, there were three outliers for Victim Age, which accounted for the oldest victims of IPV (ages were 80, 75, and 66 years old). These outliers are partially responsible for the skewness of the distributions. Still, these cases were retained for the regression analyses. There was one outlier for IPV severity. This outlier was also retained for the regression analyses.

The distributions of IPV Severity delineated by the binary factors of Victim Employment and Victim Income Status were examined (see Figures 36 to 43). These figures indicated that the distribution of IPV Severity was skewed. As given in Table 27, the Kolmogorov-Smirnov and Shapiro-Wilk statistics confirmed that these derivative distributions were also not normally distributed. The assumption of normality was violated. These violations will weaken the strength of the linear regression model.

Table 27: Tests for Normality for IPV Severity for Unemployed versus Employed Victims and Victims with Income versus Victims with No Income (N = 147)

| Victims | Kolmogorov-Smirnov[a] | | | Shapiro-Wilk | | |
|---|---|---|---|---|---|---|
| | Statistic | df | p | Statistic | df | p |
| Victim Employment | | | | | | |
| Unemployed | .133 | 45 | .045 | .922 | 45 | .005 |
| Employed | .114 | 102 | .002 | .914 | 102 | .000 |
| Victims Income Status | | | | | | |
| No income | .134 | 48 | .031 | .918 | 48 | .003 |
| Income | .114 | 99 | .003 | .916 | 99 | .000 |

a. Lilliefors Significance Correction

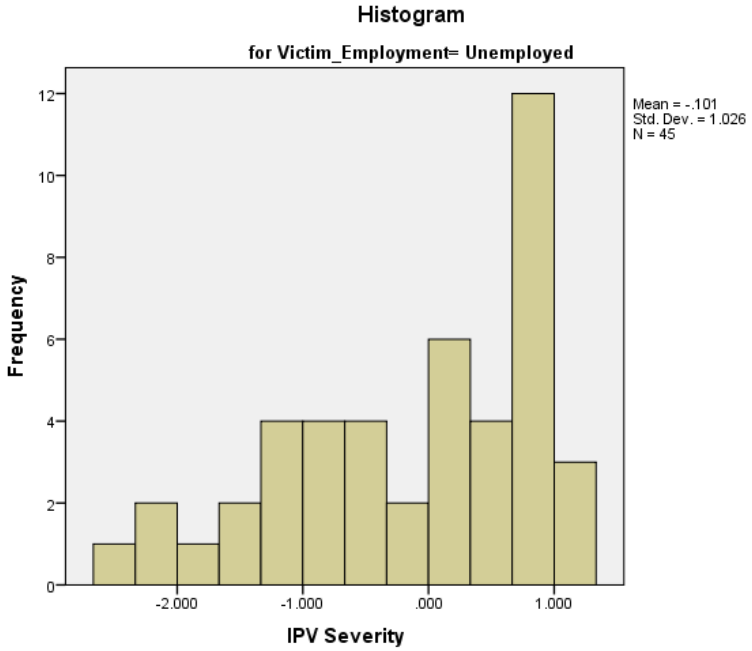


Figure 36: Histogram of IPV Severity Scores of Unemployed Victims (N = 45)

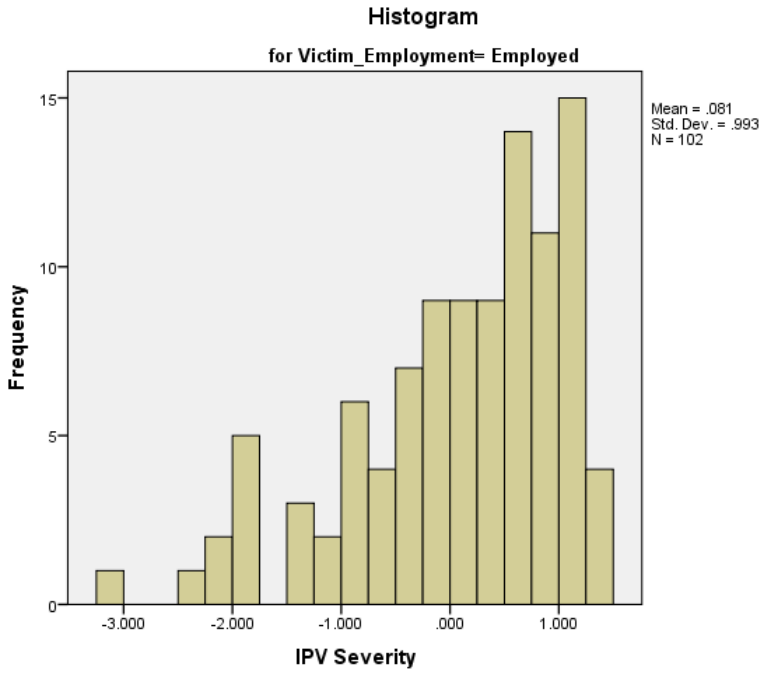


Figure 37: Histogram of IPV Severity Scores of Employed Victims (N = 102)

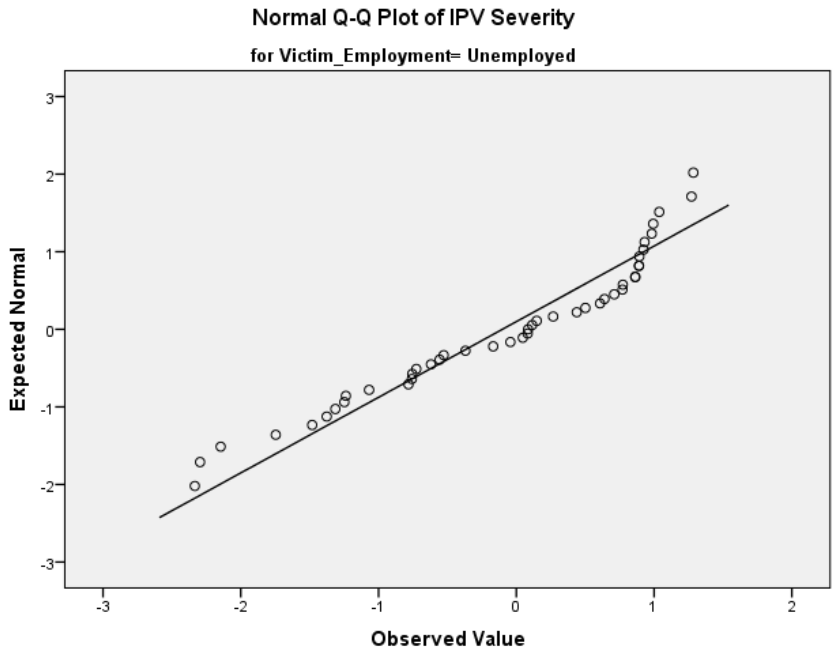


Figure 38: Normal Q-Q Plot of IPV Severity Scored of Unemployed Victims (N = 45)

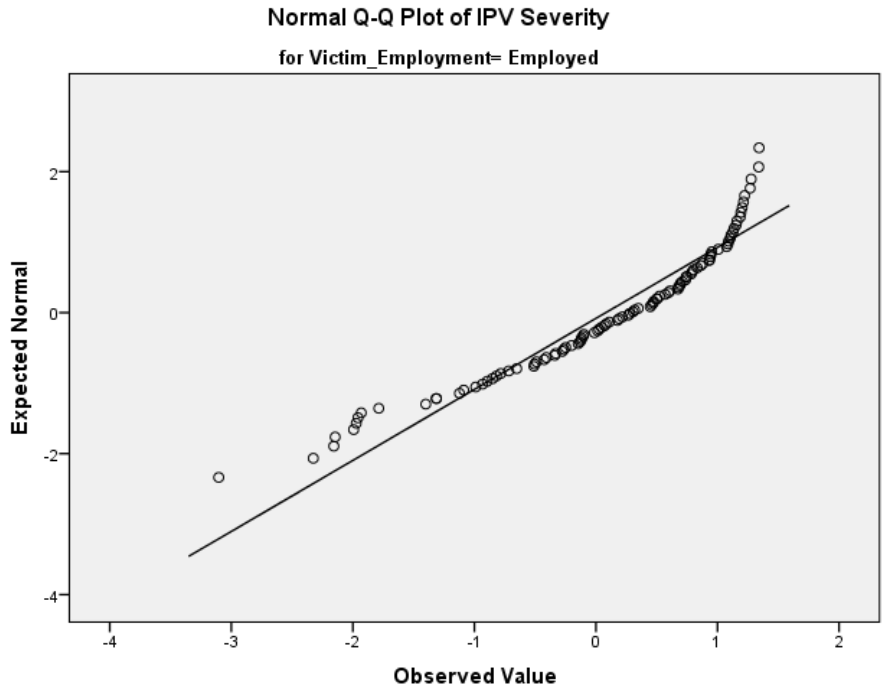


Figure 39: Normal Q-Q Plot of IPV Severity Scores of Employed Victims (N = 102)

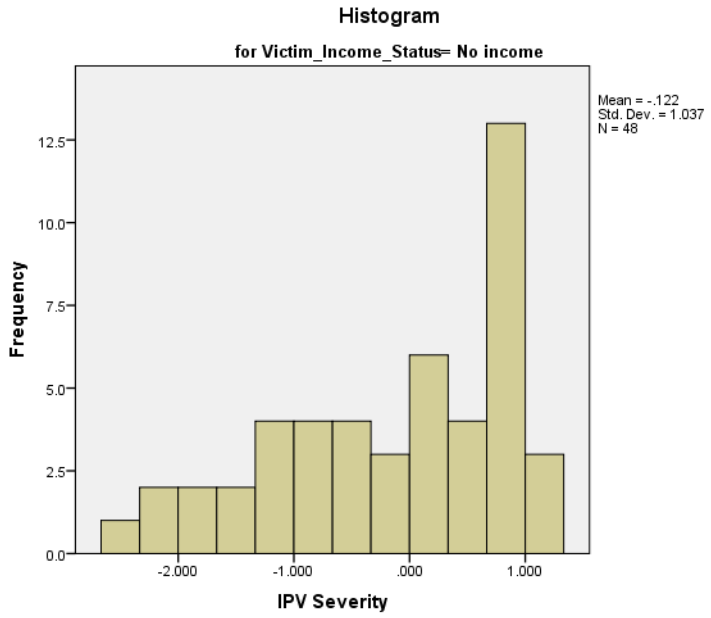


Figure 40: Histogram of IPV Severity Scores on Victims with No Income (N = 48)

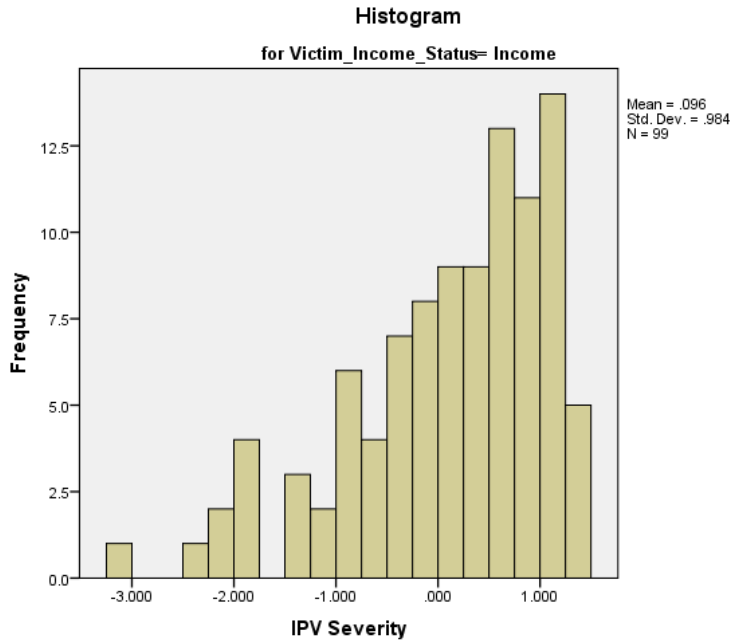


Figure 41: Histogram of IPV Severity Scores of Victims with Income (N = 99)

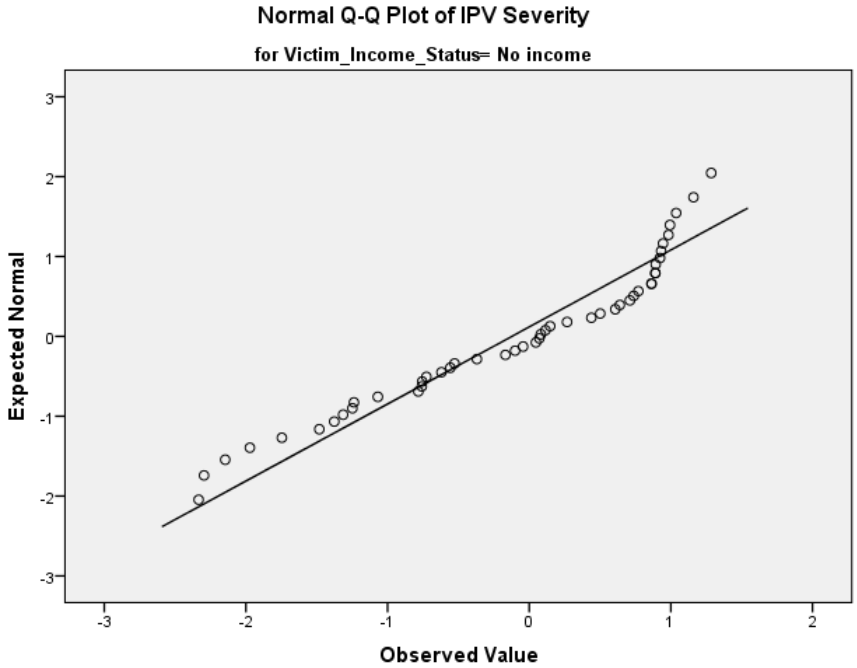


Figure 42: Normal Q-Q Plot of IPV Severity Scores of Victims with No Income (N = 48)

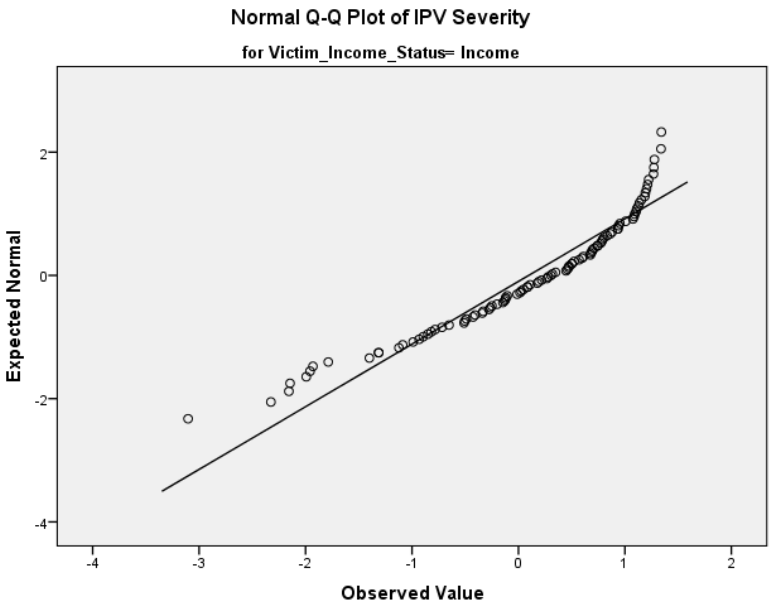


Figure 43: Normal Q-Q Plot of the IPV Severity Scores of Victims with Income (N = 99)

***Linearity***

Linear regression assumes that the dependent variable, IPV Severity, has a linear relationship with the continuous predictor variables. For this study, the only continuous predictor variable is the IPV risk factor Victim Age. To examine the assumption of linearity, a scatterplot of IPV Severity against Victim Age was obtained. If the relationship is linear, the scatterplot appears oval or cigar-shaped. The scatterplot (see Figure 44) was not oval, indicating that the relationship violated the assumption of linearity. This violation will weaken the strength of the linear regression model.

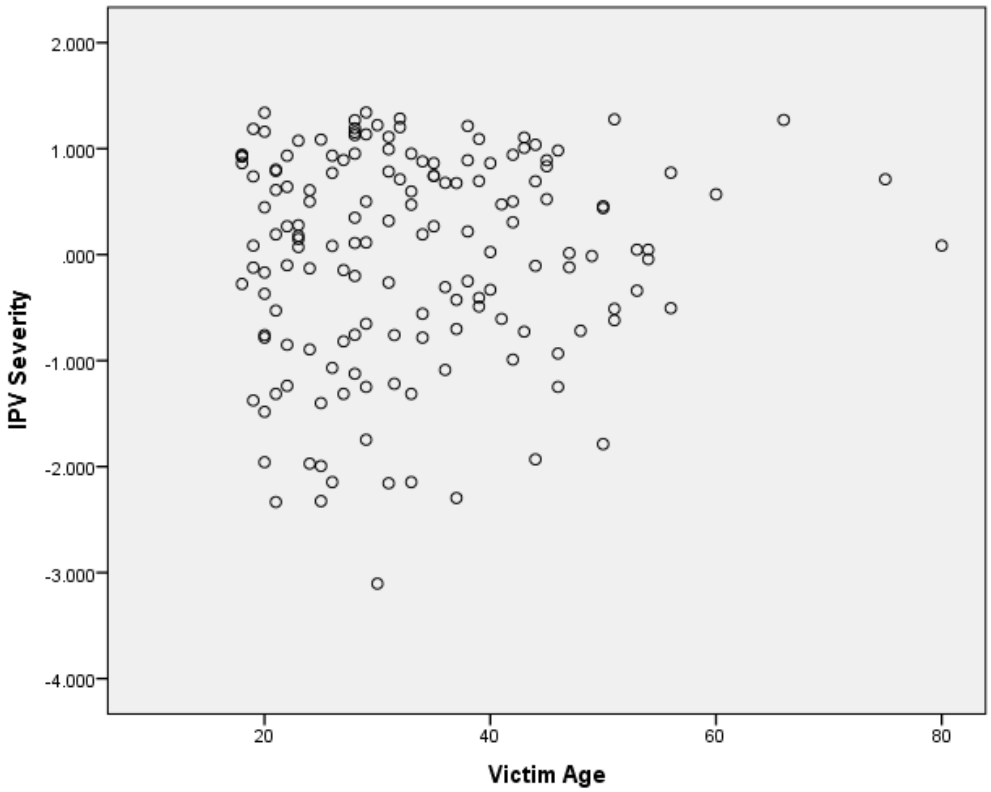


Figure 44: Scatterplot of IPV Severity against Victim Age (N = 155)

***Multicollinearity***

As previously stated, based on the Pearson Correlations reported in Table 14, Cohabitation was already excluded due to a significant high correlation of .856 ($p < .01$) with Marital Status. No other correlation was greater than .80. Urbanization and JCF Area had a significant correlation of .774 ($p < .01$), but these were variables were retained.

Table 28: Tolerance and Variance Inflation Factors for the Linear Regression of IPV Severity against Victim Employment, IPV Risk Factors and Incident Characteristics from Model 11 (N = 155)

| Variables | Collinearity Statistics | |
|---|---|---|
| | Tolerance | VIF |
| Victim Employment | .844 | 1.184 |
| Victim Sex | .757 | 1.321 |
| Victim Age | .723 | 1.384 |
| Marital Status | .771 | 1.297 |
| Estrangement | .814 | 1.228 |
| Infidelity | .942 | 1.061 |
| Home | .848 | 1.180 |
| Gun | .659 | 1.518 |
| Sharp | .663 | 1.509 |
| Home Hours | .911 | 1.097 |
| Urbanization | .328 | 3.052 |
| JCF Area I | .292 | 3.426 |
| JCF Area II | .209 | 4.793 |
| JCF Area III | .275 | 3.634 |
| JCF Area V | .318 | 3.148 |

a. Dependent Variable: IPV Severity

The values of the variance inflation factors (VIF) and tolerance statistics (see Table 28) were obtained for the linear regression of IPV Severity with Victim Employment, the IPV risk factors, and the incident characteristics. The VIF values were all below the standard of 5.0.The tolerance values for Urbanization and the JCF Area variables were below the standard of .40 indicating multicollinearity. The assumption of no collinearity was violated for Urbanization and the JCF Area variables. Consequently, Urbanization was excluded from the multiple regression analyses.

***Homoscedasticity***

Multiple regression assumes homoscedasticity (i.e., equal variances, constancy in the variance, or homogeneity of variance) of the data so that the variability of dependent variable is uniformed across all levels of the continuous independent variables. Based on

the Levene's statistics for equal variance as given in Table 29, the assumption of homoscedasticity was not violated.

Table 29: Tests for Homogeneity of Variance for IPV Severity

| IPV Severity | Levene Statistic | df1 | df2 | p |
|---|---|---|---|---|
| Victim Employment | | | | |
| Based on Mean | .589 | 1 | 145 | .444 |
| Based on Median | .409 | 1 | 145 | .524 |
| Based on Median and with adjusted df | .409 | 1 | 144.052 | .524 |
| Based on trimmed mean | .561 | 1 | 145 | .455 |
| Victim Income Status | | | | |
| Based on Mean | .858 | 1 | 145 | .356 |
| Based on Median | .651 | 1 | 145 | .421 |
| Based on Median and with adjusted df | .651 | 1 | 144.465 | .421 |

***Independence of Residuals***

Regression assumes that each residual is independent. The dataset provided contained only singular, independent IPV incidents. Although no two victims appeared to be the same person, this remains an assumption. Using the full model for IPV Severity regressed on Victim Employment, the IPV risk factors and the incident characteristics (Model 12), the histogram (Figure 45), the normal probability-probability (P-P) plot (Figure 46) and scatterplot (Figure 47) of the standardized residuals were obtained. These graphs revealed that the assumption of independence of residuals was not violated.

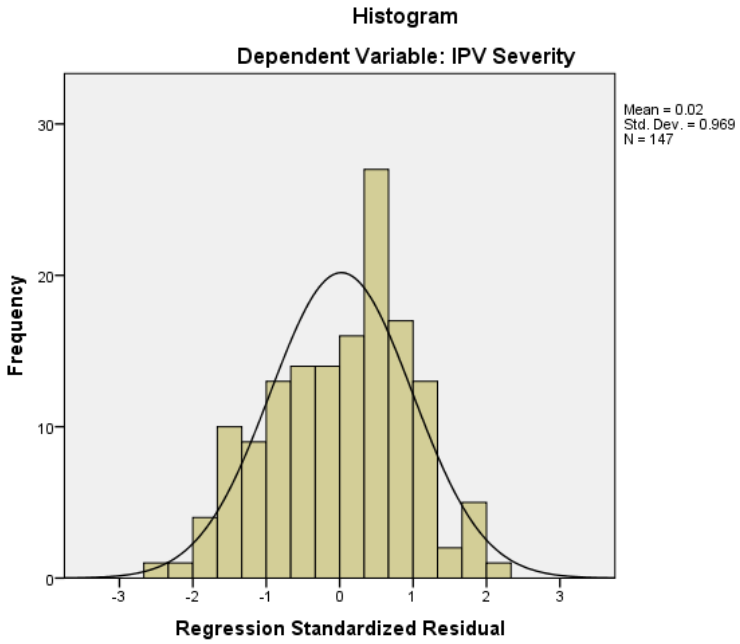


Figure 45: Model 12 Histogram of the Regression Standardized Residual of IPV Severity (N = 155)

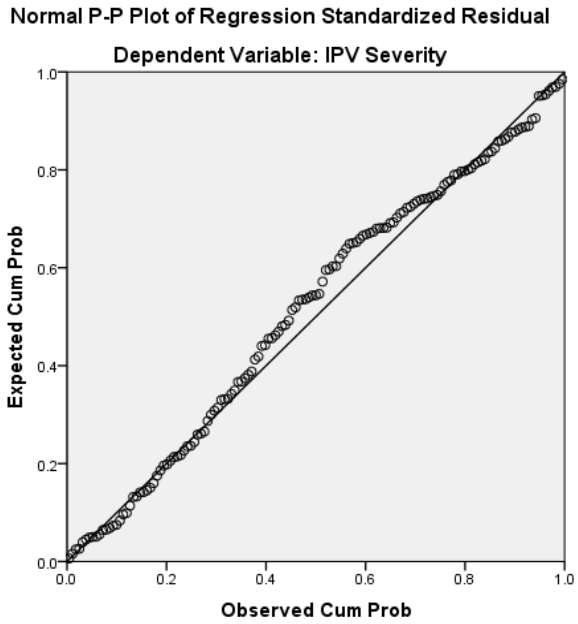


Figure 46: Model 12 Normal P-P Plot of the Regression Standardized Residual of IPV Severity (N = 155)

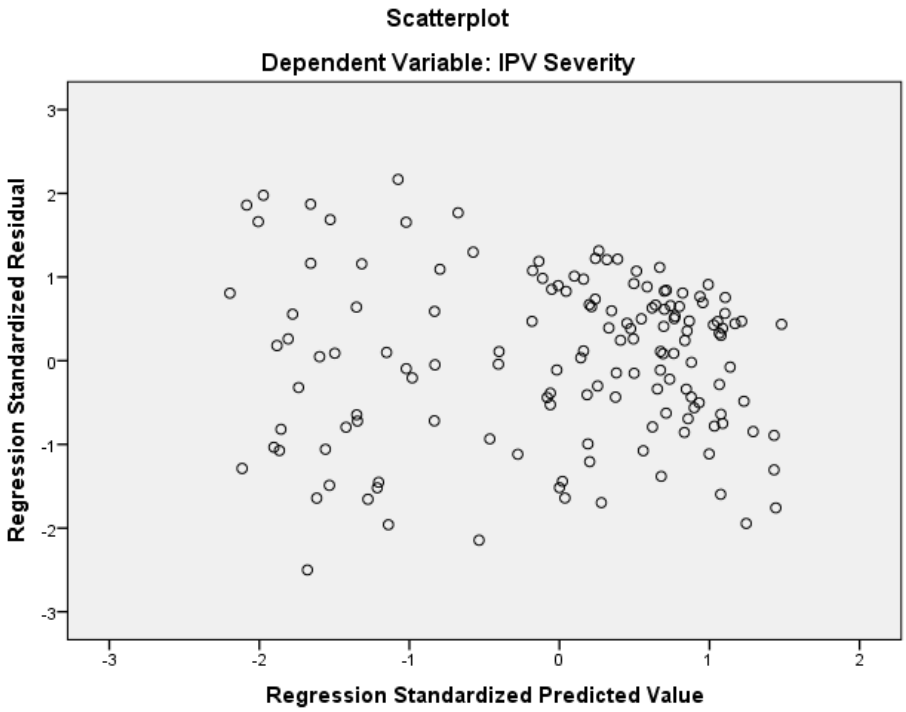


Figure 47: Model 12 Scatterplot of the Regression Standardized Predicated Value of IPV Severity (N = 155)

***$H_{4a}$: Victim employment decreases the severity of IPV.***

The hypothesis that IPV Severity can be predicted by Victim Employment, the IPV risk factors, and the incident characteristics was tested using linear regression. The revised predictive model is given in Figure 48.

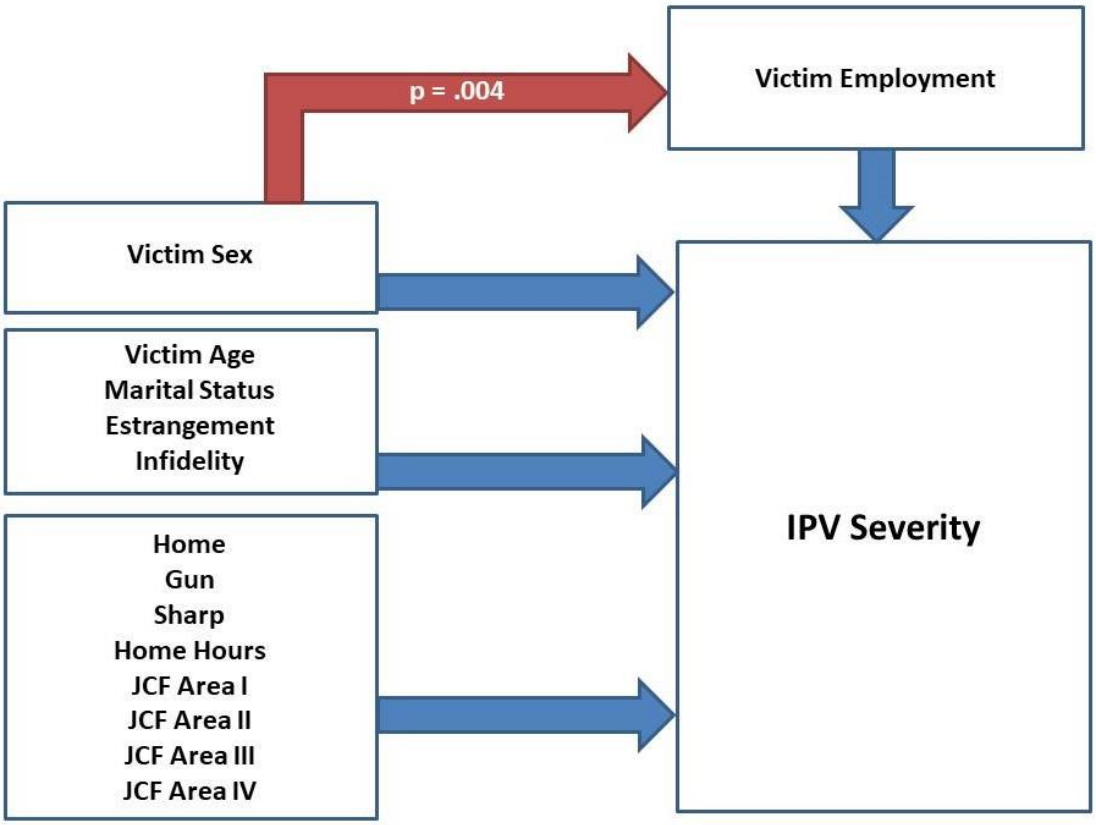


Figure 48: Revised Predictive Model of IPV Severity using Victim Employment, IPV Risk Factors, and Incident Characteristics

***Model 11***

For Model 11, IPV Severity was regressed on Victim Employment alone. As indicated in Table 30, Model 11 did not gain statistical significance F(1,145) = 1.027, p = .312 . Victim Employment alone did not predict IPV Severity.

Table 30: Model 11 ANOVA Results for Regression of IPV Severity by Victim Employment (N = 155)

| Model 11 | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Regression | 1.017 | 1 | 1.017 | 1.027 | .312[b] |
| Residual | 143.357 | 145 | .990 | | |
| Total | 144.574 | 146 | | | |

a. Dependent Variable: IPV Severity
b. Predictors: (Constant), Victim Employment

***Model 12***

For Model 12, IPV Severity was regressed on Victim Employment, the IPV risk factors, and the incident characteristics. As indicated in Table 31, Model 12 was statistically significant F(15,131) = 4.023, p = .000.

Table 31: Model 12 ANOVA Results for Linear Regression of IPV Severity with Predictors (N = 155)

| Model 12 | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Regression | 46.327 | 15 | 3.088 | 4.023 | .000[b] |
| Residual | 100.560 | 131 | .768 | | |
| Total | 146.887 | 146 | | | |

a. Dependent Variable: IPV Severity
b. Predictors: (Constant), JCF Area V, Gun, Estrangement, Home Hours, Victim Employment, Urbanization, Infidelity, Home, JCF Area I, Marital Status, Victim Sex, JCF Area III, Victim Age, Sharp, and JCF Area II.

In linear regression, the $R^2$ indicates gives the amount of variance of the dependent variable that can be explained by the independent variable. From Table 32, Model 12 explained 31.5% of the variance in IPV Severity.

Table 32: Model 12 Summary for Regression of IPV Severity with Predictors (N = 155)

| R | $R^2$ | Adjusted $R^2$ | Std. Error of the Estimate | Durbin-Watson |
|---|---|---|---|---|
| .562[a] | .315 | .237 | .876145 | 1.904 |

a. Predictors: (Constant), JCF Area V, Gun, Estrangement, Home Hours, Victim Employment, Urbanization, Infidelity, Home, JCF Area I, Marital Status, Victim Sex, JCF Area III, Victim Age, Sharp, and JCF Area II.
b. Dependent Variable: IPV Severity

Looking more closely at the performance of the coefficients of the predictors (see Table 33), only Sharp, Gun, and JCF Area V gained statistical significance. Sharp

emerged as the most salient predictor of IPV Severity (p = .000). JCF Area II approached but did not achieve significance. None of the other predictors even approached statistical significance.

Table 33: Model 12 Coefficients for Linear Regression of IPV Severity with Predictors (N = 155)

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | p | 95.0% Confidence Interval for β | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | β | S.E | β | | | Lower Bound | Upper Bound | Tolerance | VIF |
| (Constant) | -1.548 | .420 | | -3.689 | .000 | -2.379 | -.718 | | |
| Victim Employment | .132 | .171 | .061 | .774 | .440 | -.206 | .471 | .840 | 1.190 |
| Victim Sex | .166 | .186 | .074 | .896 | .372 | -.201 | .534 | .765 | 1.307 |
| Victim Age | .000 | .007 | .002 | .018 | .986 | -.014 | .014 | .695 | 1.440 |
| Marital Status | .175 | .170 | .087 | 1.027 | .306 | -.162 | .511 | .725 | 1.380 |
| Estrangement | -.019 | .179 | -.009 | -.108 | .915 | -.374 | .335 | .808 | 1.238 |
| Infidelity | -.013 | .207 | -.005 | -.064 | .949 | -.422 | .396 | .927 | 1.079 |
| Urbanization | -.429 | .275 | -.190 | -1.558 | .122 | -.974 | .116 | .353 | 2.830 |
| Home | .174 | .180 | .076 | .970 | .334 | -.181 | .530 | .859 | 1.164 |
| Gun | .771 | .238 | .290 | 3.234 | .002 | .300 | 1.243 | .650 | 1.537 |
| Sharp | 1.197 | .185 | .591 | 6.470 | .000 | .831 | 1.562 | .626 | 1.597 |
| Home Hours | .249 | .159 | .119 | 1.563 | .120 | -.066 | .564 | .901 | 1.110 |
| JCF Area I | .482 | .324 | .197 | 1.489 | .139 | -.158 | 1.122 | .300 | 3.338 |
| JCF Area II | .658 | .361 | .288 | 1.823 | .071 | -.056 | 1.373 | .209 | 4.791 |
| JCF Area III | .513 | .373 | .187 | 1.375 | .172 | -.225 | 1.252 | .284 | 3.525 |
| JCF Area V | .639 | .321 | .258 | 1.991 | .049 | .004 | 1.275 | .312 | 3.208 |

a. Dependent Variable: IPV Severity

***Model 13***

IPV Severity was regressed against only the variables that had achieved statistical significance (Gun, Sharp, and JCF Area V). As indicated in Table 34, Model 13 was statistically significant F(3, 151) = 17.654, p = .000.

Table 34: Model 13 ANOVA Results for Linear Regression of IPV Severity with Gun, Sharp, and JCF Area V (N = 155)

| Model 13 | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Regression | 39.597 | 3 | 13.199 | 17.654 | .000[b] |
| Residual | 112.898 | 151 | .748 | | |
| Total | 152.496 | 154 | | | |

a. Dependent Variable: IPV Severity
b. Predictors: (Constant), JCF Area V, Sharp, Gun

However, looking more closely at the performance of the coefficients of the predictors as given in Table 35, JCF Area V did not gain statistical significance. Recall that Urbanization was highly correlated with JCF Area. Urbanization may have mediated the effect of JCF Area. The relationship between JCF Area V and IPV Severity as indicated in Model 12 was spurious.

Table 35: Model 13 Coefficients for Linear Regression of IPV Severity with Gun, Sharp, and JCF Area V (N = 155)

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | p | 95.0% Confidence Interval for β | |
|---|---|---|---|---|---|---|---|
| | β | S.E. | β | | | Lower Bound | Upper Bound |
| (Constant) | -.806 | .137 | | -5.898 | .000 | -1.076 | -.536 |
| Gun | .726 | .217 | .269 | 3.338 | .001 | .296 | 1.156 |
| Sharp | 1.160 | .161 | .580 | 7.196 | .000 | .841 | 1.478 |
| JCF Area V | .183 | .172 | .075 | 1.069 | .287 | -.156 | .522 |

a. Dependent Variable: IPV Severity

***Model 14***

For the final model, Model 14, IPV Severity was regressed against Gun and Sharp only. As indicated in Table 36, Model 14 was statistically significant $F(2,152) = 27.029$, $p = .000$. From Table 37, Model 14 explained 26.2% of the variance in IPV Severity.

Given the effect size of .262, α of .05, and sample size of 155, the statistical power was .999.

Table 36: Model 14 ANOVA Results for Linear Regression of IPV Severity against Gun and Sharp (N = 155)

| Model 14 | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Regression | 40.006 | 2 | 20.003 | 27.029 | .000[b] |
| Residual | 112.489 | 152 | .740 | | |
| Total | 152.496 | 154 | | | |

a. Dependent Variable: IPV Severity
b. Predictors: (Constant), Sharp, and Gun

Table 37: Model 14 Summary of Linear Regression of IPV Severity against Gun and Sharp (N = 155)

| R | $R^2$ | Adjusted $R^2$ | S.E. of the Estimate | Durbin-Watson |
|---|---|---|---|---|
| .512[a] | .262 | .253 | .860267 | 1.854 |

a. Predictors: (Constant), Sharp, and Gun
b. Dependent Variable: IPV Severity

The resulting linear regression equation is demonstrated by Equation 21.

$$\text{IPV Severity} = 1.202(\text{Sharp}) + .777(\text{Gun}) - .819 \qquad (21)$$

Holding Gun constant, the use of a Sharp increased the IPV Severity by a factor of 1.202. Holding Sharp constant, the use of a Gun increased the IPV Severity by a factor of .777. That is, the use of a Gun actually decreased the IPV Severity.

Table 38: Model 14 Coefficients for Linear Regression of IPV Severity with Gun and Sharp (N = 155)

| Model 14 | Unstandardized Coefficients | | Standardized Coefficients | t | p | 95.0% C.I. for β | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | β | S.E. | β | | | Lower Bound | Upper Bound | Tolerance | VIF |
| (Constant) | -.819 | .136 | | -6.033 | .000 | -1.087 | -.551 | | |
| Gun | .777 | .216 | .293 | 3.593 | .000 | .350 | 1.204 | .729 | 1.373 |
| Sharp | 1.202 | .164 | .600 | 7.347 | .000 | .879 | 1.526 | .729 | 1.373 |

a. Dependent Variable: IPV Severity

***$H_{4b}$: Victims having income decreases the severity of IPV.***

The hypothesis that IPV Severity can be predicted by Victim Income Status, the IPV risk factors, and the incident characteristics was tested using linear regression. The revised predictive model is given in Figure 49.

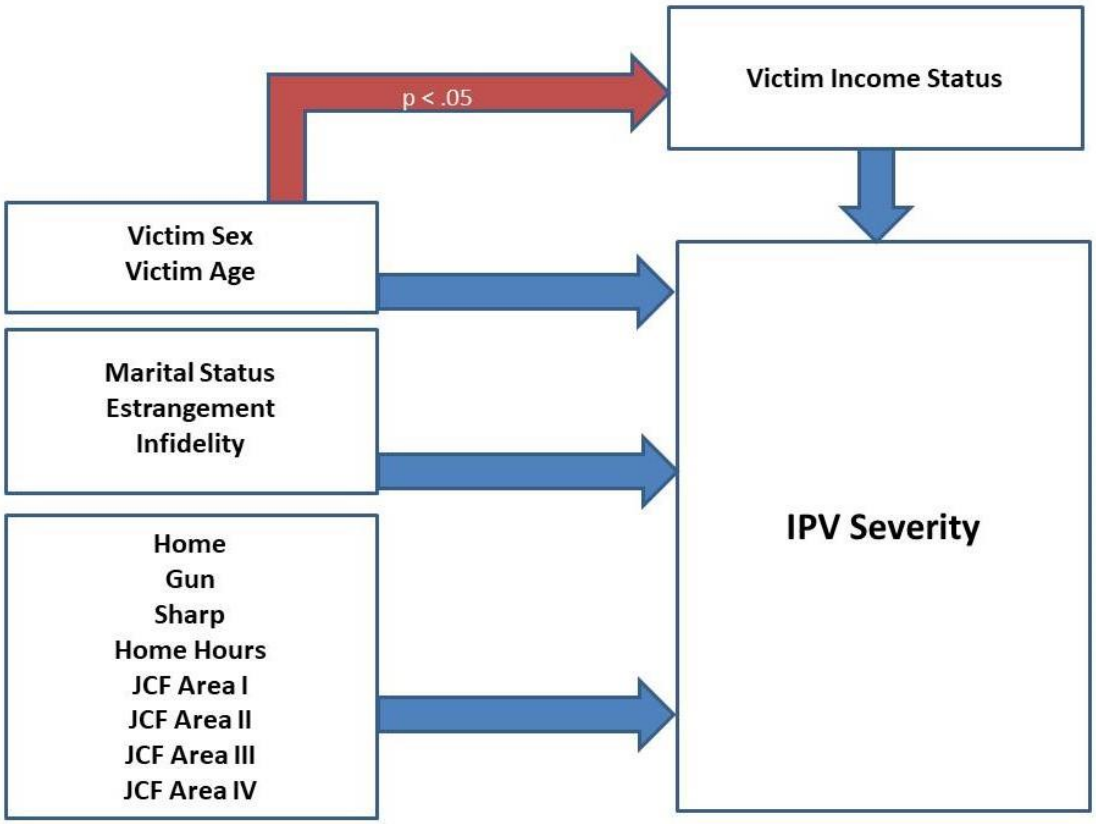


Figure 49: Revised Predictive Model of IPV Severity using Victim Income Status, IPV Risk Factors, and Incident Characteristics

***Model 15***

For Model 15, IPV Severity was regressed on Victim Income Status alone. As indicated in Table 39, Model 15 did not gain statistical significance F(1,145) = 1.531, p = .218.

Table 39: Model 15 ANOVA Results for Regression of IPV Severity with Victim Income Status (N = 155)

| Model 14 | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Regression | 1.511 | 1 | 1.511 | 1.531 | .218[b] |
| Residual | 143.063 | 145 | .987 | | |
| Total | 144.574 | 146 | | | |

a. Dependent Variable: IPV Severity
b. Predictors: (Constant), Victim Income Status

***Model 16***

For Model 16, IPV Severity was regressed on Victim Income Status, the IPV risk factors, and the incident characteristics. Due to the issue of multicollinearity with JCF Area indicated by Models 12 and 13, Urbanization was not included in the model. As indicated in Table 40, Model 16 was statistically significant F(14, 132) = 4.371, p = .001.

Table 40: Model 16 ANOVA Results for Regression of IPV Severity with Victim Income Status, IPV Risk Factors, and Incident Characteristics (N = 155)

| Model 17 | Sum of Squares | df | Mean Square | F | p |
|---|---|---|---|---|---|
| Regression | 45.796 | 14 | 3.271 | 4.371 | .000[b] |
| Residual | 98.777 | 132 | .748 | | |
| Total | 144.574 | 146 | | | |

a. Dependent Variable: IPV Severity
b. Predictors: (Constant), JCF Area V, Sharp, Victim Income Status , Infidelity, Marital Status, Home Hours, Home, JCF Area III, Estrangement, JCF Area I, Victim Sex, Victim Age, Gun, and JCF Area II

From Table 41, Model 16 modestly explained 31.7% of the variance in IPV Severity.

Table 41: Model 16 Summary of Regression of IPV Severity with Victim Income Status, IPV Risk Factors and Incident Characteristics (N = 155)

| R | $R^2$ | Adjusted $R^2$ | S.E. of the Estimate | Durbin-Watson |
|---|---|---|---|---|
| .563[a] | .317 | .244 | .865051 | 1.950 |

a. Predictors: (Constant), JCF Area V, Sharp, Victim Income Status, Infidelity, Marital Status, Home Hours, Home, JCF Area III, Estrangement, JCF Area I, Victim Sex, Victim Age, Gun, and JCF Area II
b. Dependent Variable: IPV Severity

Looking more closely at the regression coefficients as given in Table 42, again Sharp and Gun were the only predictors in Model 16 that gained statistical significance. Home Hours approached but did not achieve significance.

Table 42: Model 16 Coefficients for Linear Regression of IPV Severity with Predictors (N = 155)

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | p | 95.0% C.I. for β | | Collinearity Statistics | |
|---|---|---|---|---|---|---|---|---|---|
| | β | S.E. | β | | | Lower Bound | Upper Bound | Tolerance | VIF |
| (Constant) | -1.548 | .405 | | -3.825 | .000 | -2.348 | -.747 | | |
| Victim Income Status | .142 | .169 | .067 | .842 | .402 | -.192 | .476 | .825 | 1.212 |
| Victim Sex | .123 | .186 | .054 | .659 | .511 | -.245 | .490 | .780 | 1.282 |
| Victim Age | .000 | .007 | -.004 | -.051 | .960 | -.015 | .014 | .709 | 1.411 |
| Marital Status | .213 | .162 | .107 | 1.316 | .191 | -.107 | .533 | .779 | 1.284 |
| Estrangement | .041 | .178 | .018 | .232 | .817 | -.311 | .394 | .824 | 1.213 |
| Infidelity | -.004 | .202 | -.001 | -.018 | .986 | -.404 | .397 | .942 | 1.061 |
| Home | .154 | .178 | .067 | .865 | .389 | -.199 | .507 | .861 | 1.161 |
| Gun | .763 | .235 | .288 | 3.250 | .001 | .299 | 1.227 | .660 | 1.516 |
| Sharp | 1.164 | .177 | .580 | 6.580 | .000 | .814 | 1.513 | .666 | 1.502 |
| Home Hours | .274 | .157 | .131 | 1.748 | .083 | -.036 | .584 | .919 | 1.088 |
| JCF Area I | .200 | .238 | .081 | .840 | .402 | -.270 | .669 | .554 | 1.804 |
| JCF Area II | .216 | .229 | .094 | .946 | .346 | -.236 | .669 | .523 | 1.910 |
| JCF Area III | .080 | .247 | .030 | .323 | .748 | -.409 | .569 | .612 | 1.635 |
| JCF Area V | .309 | .237 | .124 | 1.303 | .195 | -.160 | .778 | .569 | 1.757 |

a. Dependent Variable: IPV Severity

***Model 17***

For Model 17, IPV Severity was regressed against only the variables that had achieved statistical significance (Gun and Sharp). Thus, Model 17 is a duplication of Model 14. The findings for Model 14 apply.

# CHAPTER NINE: DISCUSSION AND LIMITATIONS

## Introduction

There is a dearth of studies addressing IPV in Jamaica. Existent studies employ descriptive methods without advancing a formal theoretical explanation or examining the relationship of IPV risk factors to IPV. This mixed-methods study added to the literature by exploring the utility of two theories for explaining IPV, identifying globally-established risk factors for IPV, and unmasking an IPV risk factor in Jamaica. Further, the study empirically tested the salience of these IPV risk factors for explaining victim employment, victim income status, IPV murder, and the severity of IPV in Jamaica.

## Major Research Findings

***Study Objective 1: Explore how rivaling theories of IPV are reflected in the narratives of the Jamaican police reports.***

The study explored two theoretical perspectives --- routine activities theory and control balance theory -- of the relationships between victim employment and victim income status to IPV murder and the severity of IPV in the narratives of the police reports. Content analysis of the narratives used a priori codes from two theories.

***RQ1.1: How are the rivaling theories reflected in the narratives of the Jamaican police reports?***

Support was found for both theoretical perspectives in the narratives of the police reports. Consistent with a routine activities theory, motivated offenders were attacking vulnerable victims in the absence of capable guardians. There were also deliberate and planned predatory attacks on the victims while they were asleep or while they were alone.

In orchestrating their attacks, motivated offenders took deceitful and deliberate actions to situationally isolate victims from others who could function as capable guardians.

More often than predatory attacks, routine disputes escalated to IPV. This trend supports routine activities theory as offenders and victims were getting into interpersonal conflicts, often in the mutual home, due to their geospatial convergence in the routine unfolding of the day. But, closer analysis of the topics of the arguments revealed that offenders and victims frequently fought over issues of control; including control over minor children, money and possessions, and sexual intercourse. These tactics are consistent with the Duluth power and control wheel as behaviors utilized by offenders to exert or maintain control over the victims in IPV relationships. When offenders were unsuccessful in getting their way in the arguments, they utilized IPV to exert dominance and control over their partners.

In Jamaica, there appeared to be a plentitude of capable guardians as homes are in close proximity and extended families often shared land parcels for housing. Still, indicating a loss of control, offenders often attacked despite the presence of capable guardians. A subtheme of concern that emerged from the narratives was the timing of the responsiveness of the capable guardians. Rather than immediately or swiftly, capable guardians appeared to react slowly. The delay in responsiveness could be due to a justifiable personal fear of harm. As the narratives revealed, several capable guardians were injured and even killed. More troubling, the delay in responsiveness may be due to a cultural attitude that IPV is a private matter (Bucheli & Rossi, 2016; Watson Williams, 2018). As such, capable guardians may wait to intervene only in the event of risk of grave, imminent harm.

As strong support was found for both routine activities theory and control balance theory in the narratives of the police reports, rather than rivaling theories, these theories may best be considered as complementary and the best explanation should probably integrate both theories. Integration of these theories is feasible as the central tenets of the theories do not contradict. As such-- motivated to maintain control over their partners in an imbalanced relationship, capable offenders will use IPV against their vulnerable partners unless capable guardians successfully intervene. Future studies could further explore the utility of this integrated theory for explaining IPV in developing nations.

***Study Objective 2: Identify established and new risk factors for IPV in the Jamaican context.***

The second objective was to identify established and new risk factors for IPV in the Jamaican context. WHO (2010) listed being female, younger age, lower educational level, being married, cohabiting, being estranged from the offender, having minor children, alcohol and substance abuse by either partner, history of IPV of either partner as a victim or as an offender, residing in a rural area, and unemployment of the victim and of the offender as risk factors for IPV globally. Using focused coding, content analysis was done to see how these a priori global risk factors for IPV were represented in the narratives of the Jamaican. Further, using elaborative coding, content analysis was done to identify new risk factors in the Jamaican context.

***RQ2.1: How are the globally established risk factors of IPV reflected in the narratives of the Jamaican police reports?***

There was great variability in the presence of the IPV risk factors in the narratives of the police reports. From the content analysis, nothing was learned about the IPV risk

factors of age, education, alcohol and substance abuse, marital status, and urbanization that was not already blatantly included as a column in the dataset.

Couples often shared minor children, who were often a reason for interaction and a source of conflict. Minor children often witnessed the IPV. In only one narrative the offender hurt his child physically. Rather, in paradox to the IPV, offenders acted responsibly and caringly for their children.

Few narratives mentioned a history of IPV for the victim or the offender. But the few revealed that the severity of IPV could escalate in days to the greater demise of the victims. Despite IPV attacks in days prior, there were no corresponding police reports indicating that the victims may have not reported the preceding attacks. Alternatively, constables may have not written the reports or the preceding attacks may not have risen to felony-level (and so were not included in this dataset). Some victims had reported threats by the offenders, and the constables had given warning to the offenders. But said warnings were not heeded.

The primary focus of this study is the relationship of victim employment and victim income status to IPV. The dataset provided the victims' self-reported occupations but not those of the offenders. The majority of the self-reported occupations were indicative of low-income jobs. No narrative mentioned the income of the victim or the offender. However, a few narratives mentioned the occupations of the victim or the offender. Some IPV incidents occurred at the workplaces of the victims or the offenders, despite the expected presence of capable guardians.

Estrangement emerged as a prominent theme in the narratives. Estranged victims were often attacked in the initial stages of separation. Estranged victims suffered serious

attacks that included additional criminal acts, such as burglary or house-breaking, robbery, forced abduction, and sexual assault. Estrangement was included as a predictor in the quantitative analysis.

The qualitative analysis revealed gender inequities. The sex of the victim or the offender was linked with the risk factors of cohabitation and infidelity (discussed later) and with the subcodes of offender weapon, offender suicide, and sexual intercourse. Male offenders showed preferences for different weapons than female offenders. Only male offenders used guns. Only female offenders used hot liquids. Additionally, only male offenders committed suicide. For all narratives that had a subcode of sexual intercourse, whether forced or consented, the victims were female. Even when the couple was legally married, the mutual home was regarded as the male partner's. In the event of a break up, the female partner had to find a new home. As such, cohabitation also reflected a gendered pattern. Figure 50 provides a network of the codes and subcodes that reflected gendered patterns.

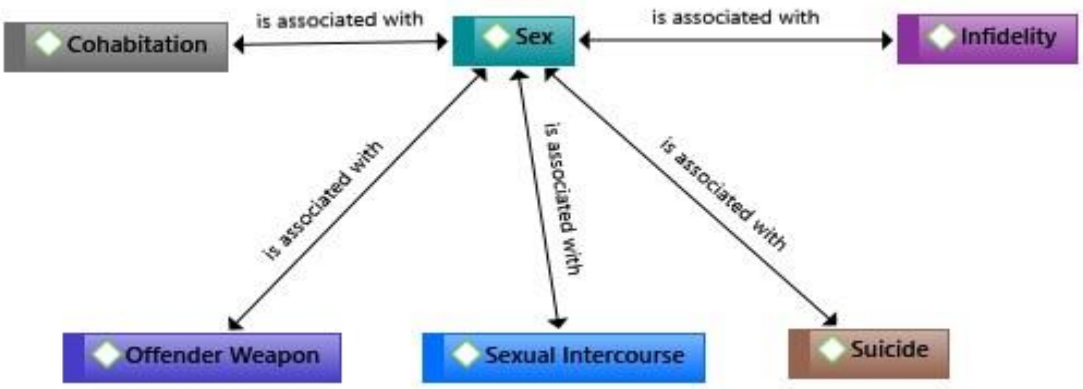


Figure 50: Codes and Subcodes Associated with Sex

In sum, confirming WHO's (2010) established IPV risk factors globally, minor children, history of IPV, and employment were mentioned in the narratives albeit minimally. Alcohol and substance abuse and urbanization were not mentioned in the narratives. Gendered patterns were found for cohabitation and for the subcodes of offender weapon, sexual intercourse, and offender suicide. As such, Sex and Estrangement emerged as prominent themes in the narratives.

***RQ2.2: What new risk factors of IPV are found in the narratives of the Jamaican police reports?***

Infidelity emerged as a prominent theme in the narratives. WHO (2010) identified infidelity of the offender as a risk factor for IPV. Infidelity has been identified as a risk factor in previous studies also. Illustratively, Yuksel-Kaptanoglu et al. (2012) reported that Turkish women with unfaithful husbands had nearly double the odds (odds ratio = 1.82) of experiencing IPV. Consistent with this literature, there were some narratives that mentioned infidelity of the offender. But, in the Jamaican context, the infidelity of the victim was more prominently featured in the narratives. Infidelity was identified as a risk factor in the Jamaican context and so this variable was included in the quantitative analysis.

***Study Objective 3: Examine the relationship between victim employment and IPV in Jamaica.***

The quantitative analyses examined the relationship of victim employment, victim income status, the IPV risk factors, and the incident characteristics with IPV murder and the severity of IPV in Jamaica.

***RQ3.1: How are the risk factors for IPV different based on the victim's employment or the victim's income status?***

Hypothesis 1a ($H_{1a}$): Employed victims are different from unemployed victims on the risk factors for IPV.

Hypothesis 1b ($H_{1b}$): Victims with income are different from victims with no income on the risk factors for IPV.

Addressing Research Question 3.1, the differences in the IPV risk factors for employed victims versus unemployed victims ($H_{1a}$) and for victims with employment-related income versus victims with no employment-related income ($H_{1b}$) were examined. A Chi-Square test for independence indicated a significant association between Victim Employment and Victim Sex, $\chi^2$ (1, n = 158) = 9.481, p = .002, phi = -.245. Hypothesis $H_{1a}$ was supported for Victim Sex only. The statistical power was high (.869) giving credence that there is a credible effect detected by the research design. Using the continuous variable Victim Age, an independent samples t- test revealed no significant difference in the mean age of employed victims and unemployed. In sum, employed was significantly associated with being male.

A Chi-Square test for independence indicated a significant association between Victim Income Status and Victim Sex, $\chi^2$ (1, n = 158) = 14.435, p = .000, phi = -.302. The statistical power was .967. However, there were only four unemployed male victims and only three male victims with no income. Thus, these cells violated the Chi-Square test's requirement that each cell have at least a five count. A Chi-Square test for independence indicated a significant association between Victim Income Status and Victim Age Under 30, $\chi^2$ (1, n = 158) = 8.096, p = .004, phi = -.26. Hypothesis $H_{1b}$ was

supported for Victim Sex and Victim Age Under 30 only. The statistical power was .811 giving credence that there is a credible effect detected by the research design. In sum, having employment-related income was significantly associated with being male and being over the age of 30.

Using the continuous variable Victim Age, an independent samples t- test revealed a significant difference in the mean age of victims with income and victims with no income, $t(156) = 2.759$, $p = .006$. Victims with income had a mean age of 34.66 and victims with no employment-related income had a mean age of 29.20. The victims with income included three pensioners whose ages were outliers (66, 75, and 80 years). Excluding those outliers from the analysis, an independent samples t- test still revealed that there was a significant difference in mean age. In sum, the mean age of victims with income was significantly different from the mean age of victims with no income. Hypothesis $H_{1b}$ was supported for Victim Sex, Victim Age Under 30, and Victim Age.

To surmise, reflecting gender inequity, for Jamaican IPV victims, being employed and having income were significantly associated with being male. Additionally, for Jamaican victims, having income was significantly associated with being above age 30. On average, the victims with income were older than victims with no income. Ergo, younger female IPV victims may be most likely to be unemployed and with no income.

***RQ3.2: Can any of the risk factors for IPV predict victim employment or victim income status in Jamaica?***

Hypothesis 2a ($H_{2a}$): The IPV risk factors decrease the odds of victim employment.

Hypothesis 2b *($H_{2b}$)*: The IPV risk factors decrease the odds of victims having income.

Addressing Research Question 3.2, the salience of the IPV risk factors for predicting the odds of victim employment ($H_{2a}$) and the odds of the victim having employment-related income ($H_{2b}$) was examined. When logistic regression of Victim Employment against the IPV risk factors was done, the model was not significant $\chi^2$ (6, n = 158) = 12.171, p = .058. However, within the model, Victim Sex gained statistical significance. Eliminating the other predictors, a Victim Sex only model achieved statistical significance, $\chi^2$ (1, n = 158) = 10.949, p = .001. The statistical power was strong (.989). Holding all other factors constant, a male IPV victim was 4.98 times more likely than a female victim to be employed. Hypothesis $H_{2a}$ was supported for Victim Sex only.

When logistic regression of Victim Income Status against the IPV risk factors was done, the model was significant $\chi^2$ (6, n = 158) = 23.108, p = .001. Based on the Nagelkerke $R^2$, the full model explained 19.1% of the variance in Victim Income Status. Within the model, Victim Sex and Victim Age Under 30 were the only two predictors that gained statistical significance. Eliminating the other predictors, the revised model with only Victim Sex and Victim Age Under 30 achieved statistical significance, $\chi^2$ (2, n = 158) = 122.757, p = .000. Holding all other factors constant, a male victim was 7.299 times more likely than a female victim to have employment-related income; and a victim over age 30 was 2.358 times more likely to have employment-related income than a victim that was 30 years old or younger. Hypothesis $H_{2b}$ was supported for Victim Sex and Victim Age under 30 only.

To surmise, for Jamaican IPV victims, being female decreased the odds of being employed and of having employment-related income. Male IPV victims were nearly five times more likely to be employed and over sevens time more likely to have employment-related income than female IPV victims. Further, for Jamaican IPV victims, victims over age 30 were more than twice as likely to have employment-related income. While being male and being older were found to be associated with being employed and having income in Research Question 3.1, the findings from Research Question 3.2 illuminate the breadth of the gender and age disparities.

***RQ3.3: How are victim employment and victim income status related to IPV murder in Jamaica?***

Hypothesis 3a ($H_{3a}$): Employed victims have lower odds of IPV murder than unemployed victims.

Hypothesis 3b ($H_{3b}$): Victims with income have lower odds of IPV murder than victims with no income.

Addressing Research Question 3.3, the salience of Victim Employment, Victim Income Status, the IPV risk factors and the incident characteristics for predicting IPV Murder was examined. Using logistic regression the hypothesis that employed victims have lower odds of being murdered than unemployed victims ($H_{3a}$) and that victims with income have lower odds of being murdered than victims with no income ($H_{3b}$) were tested. Neither Victim Employment alone nor Victim Income Status alone was able to predict the odds of IPV Murder. Using the backward elimination method, the final model retained Gun and Sharp only. Gun and Sharp were useful for predicting the odds of IPV Murder $\chi^2(2, n = 158) = 13.273$, $p = .001$. Based on the Nagelkerke $R^2$, the model

explained only 8.1% of the variance in the odds of IPV Murder. Holding all other factors constant, when an offender used a sharp or piercing weapon, the odds of the victim being murdered was 4.773 greater than if no sharp or piercing weapon was used. Holding all other factors constant, if the offender used a gun, the odds of the victim being murdered was 3.714 greater than if no gun was used. The hypotheses that victim employment ($H_{3a}$) and victim income status ($H_{3b}$) can predict the odds of IPV murder were not supported. Rather, only the offender's choice of weapon, namely a gun or a sharp or piercing object, can predict the odds of IPV Murder.

***RQ3.4: How are victim employment and victim income status related to the severity of IPV in Jamaica?***

Hypothesis 4a ($H_{4a}$): Victim employment decreases the severity of IPV.

Hypothesis 4b ($H_{4b}$): Victims having income decreases the severity of IPV.

Addressing Research Question 3.4, the impact of Victim Employment, Victim Income Status, the IPV risk factors, and the incident characteristics on IPV severity were examined. The hypotheses that victim employment ($H_{4a}$) and victims having income ($H_{4b}$) decreased the severity of IPV were tested. Neither Victim Employment alone nor Victim Income Status alone predicted IPV Severity. Hypotheses $H_{4a}$ and $H_{4b}$ were not supported. The only variables that gained statistical significance for predicting IPV Severity were Sharp and Gun. The model containing only Sharp and Gun was statistically significant ($F(14,132) = 4.332$, $p = .000$) and explained 31.5% of the variance in IPV Severity. The statistical power was high (.999).

Sharp was the more salient predictor. As Sharp had an unstandardized coefficient of 1.202, if the offender used a sharp or piercing weapon then the IPV severity was magnified. This finding was not surprising as a sharp or piercing weapon was used to kill 49 (70.0%) of the murdered victims.

By contrast, as Gun had an unstandardized coefficient of .777, the IPV severity was reduced. The finding that the use of Gun reduced the severity of IPV was surprising and necessitated further attention. Of the 166 victims, only 147 were included in the regression analysis for the severity of IPV. Two of the excluded cases were murders where a gun was used. The finding should not have been due to their exclusion.

Looking solely at the 147 included victims, there were 25 victims who were attacked by an offender using a gun. Eleven victims who were murdered by an offender using a gun accounted for 18.3% of the murdered victims. Fourteen (56.0%) of the 25 victims were not murdered. For three of these victims, they were not shot. In one narrative, the offender used the gun to damage property, but never aimed it at the victim. One possibility is that level of injury influenced how the respondents rated the IPV severity of those incidents. Figure 51 presents the distribution of IPV Severity scores when the offenders used a gun.

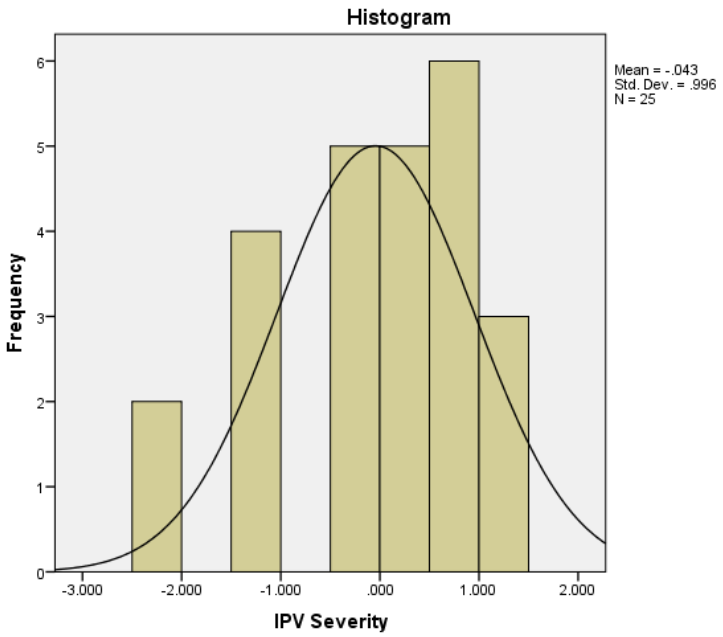


Figure 51: Histogram of the IPV Severity Scores when Offenders used a Gun (N = 25)

The possibility that the narratives when the offenders used a gun were marred by brevity and so impacted how the survey respondents rated the IPV severity was examined. The mean number of words for narratives where the offender used a gun was 97 words with the median number of words being 73. See Figure 52. These statistics compared to a mean of 78 words with median of 60 words for all the narratives. Prima facie, the length of the narratives should not have influenced the ratings assigned by the survey respondents. Absent an alternative explanation, the surprising finding that use of a gun reduced the severity of IPV is accepted.

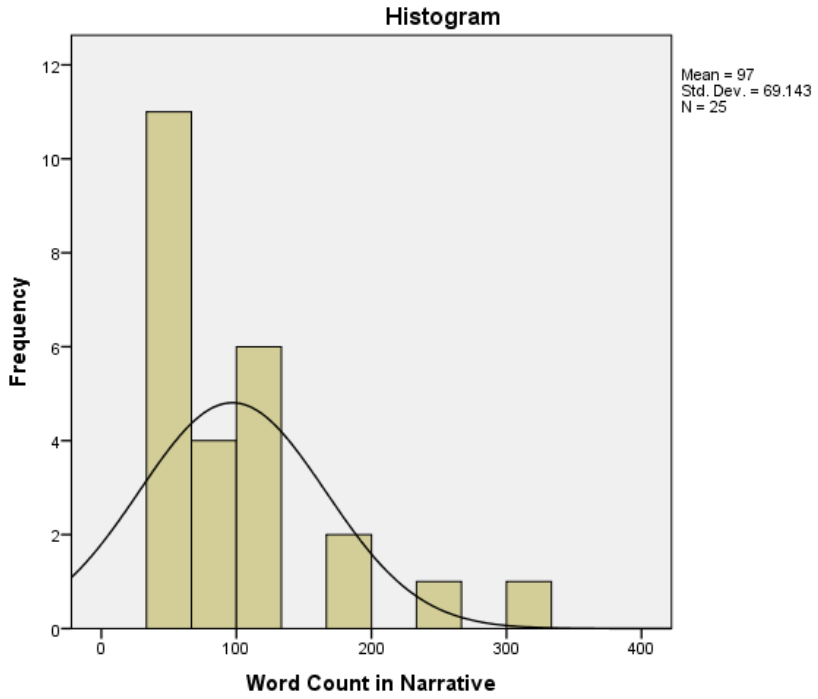


Figure 52: Histogram of the Word Count of the Narratives when the Offender used a Gun (N = 25)

## Limitations

***Secondary Data.***

As previously stated, this study relies on secondary data using a non-representative sample of police reports of felony-level IPV victimization. All the limitations that are inherent with secondary data analysis apply. The data is cross-sectional and thus does not allow for the following of the victims or the offenders over time. The dataset is from the initial police reports at the beginning of the investigation. Additional information may have come to light in the investigative process that was unavoidably not included in the dataset.

In general, the narratives were characterized by brevity. As such, little information was offered about several of the IPV risk factors, including the history of

IPV of the victim and the offender. Another flaw of using arrest reports is that, in the case of murder, the offender is listed as the surviving spouse. Most often, this is not a concern. But there are reports where the surviving spouse was or may have been acting in self-defense. Due to the absence of the rest of the investigation, this information was not available.

***Generalizability.***

The police reports come from Jamaica, a relatively homogenous population with the same cultural background. As such, the results of this study should not be considered generalizable to other populations. Even for Jamaica specifically, the victimization explored in this study cannot be considered typical. Research has supported that IPV escalates over time from minor offenses to more severe violence (Hanner & Stanko, 1985; Feld & Straus, 1989). This study does not include misdemeanor offenses, which are unlikely to even be reported in the Jamaica culture.

Although all these victims suffered felony-level IPV, the data cannot be thought to be representative of victims of severe IPV in Jamaica. Despite high levels of injury, IPV is a gravely underreported crime in Jamaica (Arscott-Mills, 2001). In 1999, reports from the government-run Kingston Public Hospital's Violence-Related Injury Surveillance System indicated that 22% of the injuries experienced by women that year were due to IPV. In 2012, the Jamaica Ministry of Health reported that 4,668 women between the ages of 20 and 70 were seen due to intentional injuries due to DV or IPV (National Strategic Action Plan to Eliminate Gender-Based Violence, 2016). These figures confirm that IPV is gravely underreported to the police. When victims choose to report, a police report may not be done (United Kingdom Home Office, 2015). As such,

the victimization presented here may be the most horrific cases of IPV. Thus, this purposive sample should be considered unrepresentative. And the results should be considered to have limited generalizability.

***Missing Influential Variables.***

The scope of the data does not include other IPV risk factors (WHO, 2010) variables that may influence the severity of IPV or odds of IPV murder but are not available through this dataset; such as the actual income of the victim and the offenders; the employment status and income of the offender; the age of the offender; the history of IPV of either partner; and the criminal history of the offender.

***Bi-Directionality.***

This study assumes that victim employment and victim income impacts IPV, but not vice versa. Yet, IPV may affect victim employment and victim income (Showalter, 2016). It was beyond the scope of this cross-sectional study to assess the possible bi-directionality of the relationship between victim employment or victim income status and IPV.

***Measuring IPV Severity.***

IPV Severity was measured using an online survey *Measuring the Severity of IPV in Jamaica*. Respondents of Jamaican heritage were asked to rate the severity of IPV in the de-identified narrative using a Likert-type scale. This operationalization has several limitations. There was immense variability in the level of detail of the narratives of the police reports. The brevity of some narratives may have influenced the severity rating. The measurement is essentially the perception of the respondents of the severity of IPV. However, the mean of the independent ratings made by the sample are an improvement in

measuring IPV over the singular rating that the victim or victim's family alone would have provided. The ratings were not done by a representative random sample, but rather by a convenient purposive sample. Still, each narrative was rated by a large sample of independent respondents, and so the mean of the responses can be considered a true representation of the severity. Despite these limitations, this method improves on the more widely-used dichotomies for measuring IPV.

## Summation

Despite limitations, the study revealed that there is merit to the use of both theories for explaining the relationship between victim employment and IPV. The exploratory content analysis uncovered themes related to both theories. Further, the content analysis highlighted the IPV risk factors of sex and estrangement as prominent themes in the narratives. Sex was related to several other codes (such as offender weapon and cohabitation) and subcodes, such as offender suicide. As such, the focused coding suggested that IPV in Jamaica has many gendered aspects. Elaborative coding uncovered infidelity of the victim as a new theme in the Jamaican context.

From the quantitative analysis, victim employment alone and victim income status alone were not supported as significant predictors of IPV. In fact, the only salient predictors of IPV murder and IPV severity that emerged were Gun and Sharp. The quantitative analysis revealed that older victims (over 30 years old) were more likely to have income. Importantly, the quantitative analysis also revealed vast gender inequity in victim employment and victim income status. Male IPV victims were more likely to be employed and more likely to have income than female IPV victims.

# CHAPTER TEN: IMPLICATIONS AND CONCLUSION

IPV is a sensitive topic, and the issue is exacerbated in developing nations, such as Jamaica, where IPV rates may be high as it is condoned or overlooked in certain circumstances. Accessing information about IPV victims and accessing the victims themselves are great hurdles, which translate to the topic being under-researched. To the best knowledge of the researcher, this study stands unaccompanied in empirically exploring theoretical explanations for IPV in Jamaica and also statistically testing IPV risk factors using the actual violence experienced by the victims as recorded in the Jamaican police reports.

## Theoretical Implications

Using content analysis, this study explored the utility of routine activities theory and control balance theory for explaining the relationship between victim employment and victim income status and IPV in Jamaica. The content analysis unveiled themes supportive of both theories. On the one hand, supporting routine activities theory, narratives recounted the intervention of capable guardians or steps taken by the offenders to ensure that the victims were attacked at times of high vulnerability, such as when sleeping. It is noteworthy that, in the quantitative analysis, the variables that appear germane to routine activities theory (Home Hours, Mutual Home) did not gain statistical significance for predicting IPV. On the other hand, supporting control balance theory, the narratives unveiled that IPV was being used as a method to control the victims. This is consistent with the offender behaviors identified in the Duluth Power and Control Wheel for maintaining dominance in the intimate relationship. Additional, while routine household interactions led to disputes which escalated to IPV, the content analysis also

revealed that the topics of the arguments were often concerning control and dominance. As such, an integrated theory may be most suitable for explaining IPV in the Jamaican context. That is, absent capable guardianship, motivated and capable offenders will choose IPV against their vulnerable victims to exert control, impose dominance, and maintain a surplus of control in the intimate partner relationship. Future research could attempt to test the utility of an integrated theory for explaining IPV in the Jamaican context.

## Research Implications

***Sample.***

This study limited the sample to adult victims assaulted by their intimate partners. It is noteworthy that 34 victims, including two intimate partners who were only 16 years old, were excluded from the analysis due to the inclusionary criteria. As the incidents often involved multiple victims, information about some of these victims was captured in the narratives. The stories of these victims, such as the victims in the following excerpt, have not been lost in this study.

> *Accused and his common law wife Jane had a dispute when he attacked her with a machete chopping her several places on her body. Michelle and Monica intervened and both were also chopped and injured. Monica received injuries on the top of her head and Michelle in her back. They were taken to the [Hospital] where Jane and Monica were treated and released and Michelle was admitted with a crack skull.*

But for many other victims who were not intimate partners, including the children of the intimate partners, their stories were excluded by the research design. In one case,

the offender killed the minor children of the intimate partner but did no crime against the intimate partner herself. The stories of these victims are hauntingly missing from this study. Future research should widen the net by including all victims (not just the intimate partners or just the victims as recorded in the police reports) involved in IPV cases.

***Income.***

For this study, victim income status was treated as a dichotomous variable indicating only if the victim had income or did not have income. It was beyond the scope of this research to examine actual victim income or offender income, measured as a ratio or ordinal variable, as a contributing factor. Low victim income itself is recognized as a risk factor for IPV (CDC, 2017). It is possible that the inconsistency in the research on victim employment and victim income status is attributable to the related variable of income differential, i.e. the fraction of household income that is attributable to each spouse. Further, it was beyond the scope of this study to measure the amount of control that each party has over the unified household income. The amount of income of the victim may be an inconsequential variable if the offender has full control over said income. The use of income differential or control of household income as a predictor variable for IPV is suggested for future research.

***Sexual IPV.***

Sexual crimes were not included in the dataset provided by JCF. As such, the dataset did not include the felonies of rape, grievous sexual assault, and forcible abduction as covered under Jamaica's Sexual Offences Act. Sexual IPV is an important aspect of the IPV which, although less prevalent, often co-occurs with the physical violence (United Nations, 2015). Rahman et al. (2011) found that victim employment

significantly increased sexual IPV for Bangladeshi women by an odds ratio of 1.47. Meekers et al. (2013) reported that 6.9% of the Bolivian women in their sample experienced sexual IPV but no physical IPV, while 5.5% experience both.

The rates of sexual IPV in Jamaica may be astounding. Arscott-Mills (2009) found that 59% of the Jamaican women in her sample had experienced sexual IPV. By contrast, Watson Williams (2018) reported that only 7.7% of her sample reported being sexually abused by her male partner. Le Franc et al. (2008) noted that, of the women from three Caribbean nations represented in their sample, Jamaican women reported the most sexual IPV.

From the qualitative analysis, some of these IPV victims were also sexually victimized. Due the limitations of Jamaica's Sexual Offence Act in not recognizing attempted rape and not recognizing marital rape in all circumstances, content analysis of police reports may not be able to capture the scope of sexual violence against intimate partners. Sexual IPV in Jamaica is a critical area for future research.

***IPV Severity Scale.***

Inter alia, one of the strengths of this study is that IPV severity is measured on a scale with the incidents being rated anonymously by a convenience sample. Prior studies have treated IPV as a dichotomy (such as 'occurred' versus 'not occurred'). A dichotomy does not capture the breath of IPV. Other measurements of IPV rely on input from the victims or offenders, which was not possible for this study. Further research can be done using this scale, such as to examine differences in ratings based on age, gender, heritage or profession of the respondents. Further, this scale can be re-used to uncover regional differences or to examine changes in the ratings over time.

***Future Prospective Research Designs.***

This study did not find a statistically significant relationship between victim employment or victim income status and IPV in Jamaica. Future studies could employ a longitudinal, prospective design to allow for a causal inquiry into these relationships. Given the theme of gender inequity, the study could focus on female IPV victims. Recruitment could occur with help from Women Incorporated and governmental health clinics where Jamaican women primarily seek treatment. After informed consent, these women would complete a survey disclosing their employment status (measured dichotomously), occupation, and income (measured on a ratio scale) as well as disclosure of the other established risk factors (WHO, 2010). Given the gender inequity unmasked in the study where the offender owned the home, the women would be asked about home ownership. Additionally, the unemployed women could be asked to rate the extent of their job seeking to see if job seeking behaviors lead to IPV. To capture offender variables, the women would be asked to report their partner's employment status, occupation, and income if known. Given the salience of offender weapon and infidelity as identified from this study, these variables would also be included in the survey.

The women would be asked to orally describe their experiences of IPV in the preceding three months. The survey would be designed to capture both frequency and severity of IPV. The women would then be followed over a one-year period, and asked to report (by oral narratives also) on future IPV. The oral narratives would be transcribed and de-identified. The severity of IPV would be measured similarly to the Measuring the Severity of IPV Scale in Jamaica utilized in this study where an independent, anonymous

sample would rate the women's IPV experiences based on the women's de-identified self-reported narratives.

Data analysis would occur in three manners. First, survival analysis would be used to determine the time to next IPV attack for employed women versus unemployed women while controlling for the other IPV risk factors. Second, regression analysis would be used to clarify the relationship between income and IPV severity over time. Third, women whose employment status changes in the course of the study allow for a using a quasi-experimental design for further analysis of the change in IPV severity with four comparison groups as demonstrated in Figure 53. While much was learned from this study, these causal designs would add to the improved understanding of the relationship between victim employment or victim income and IPV in Jamaica.

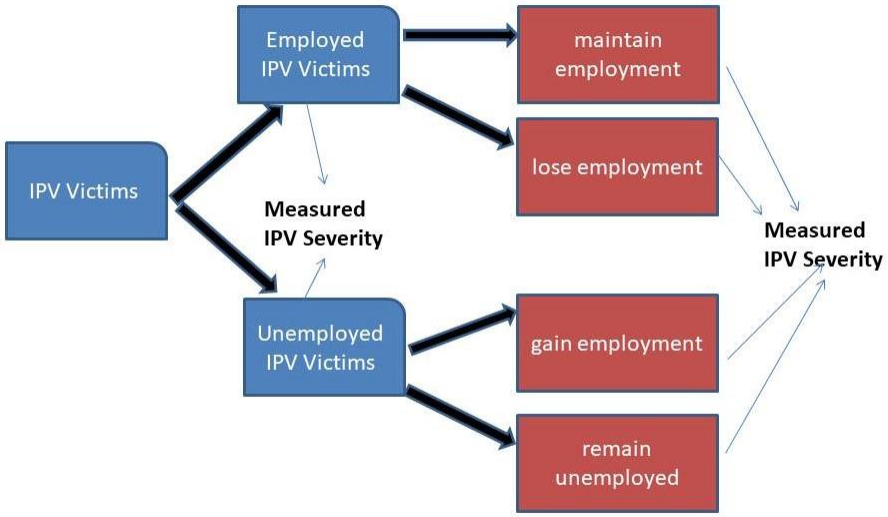


Figure 53: Prospective Quasi-Experimental Study Design

## Public Policy Implications

The third goal of the Millennium Development Goals (MDG) makes gender equality and empowerment a global concern and objective. Like most of the sovereign Commonwealth Caribbean nations, Jamaica appears to lag behind most developed nations in efforts to eradicate IPV (Smith, 2016). Jamaica is a signatory on several international treaties to protect women against gender-based violence. Since the 1990s, Jamaica has made great advancements in legislation to prevent IPV. These include the Domestic Violence Act that was enacted in the 1996 and revised in 2004 and the Sexual Offences Act that was enacted in 2009 and revised in 2011. But the momentum for change seems to have stagnated. In 2013, at the Regional Conference on Women in Latin America and the Caribbean, the Government of Jamaica expressed their continued commitment to the advancement of gender equality in Jamaica particularly with regard to economic autonomy, equality in the workplace, and eradication of gender-based violence. As such, in 2013, the Government of Jamaica began drafting a National Strategic Action Plan to Eliminate Gender-Based Violence (NSAP-GBV) to put forward plans to eliminate gender-based violence. The actions were to be implemented from 2016 to 2026. At present, nearly six years later, the document appears to still be a draft.

The goal of policy research is to provide concrete public policy recommendations that can improve or guide strategic intervention. IPV presents a complex challenge for public policy and strategic intervention. Unlike most other crimes, the victim is intimately related to the offender and the two may share minor children. They may reside with each other, and often express intense love for each other.

O.D. Duncan's (1964) POET Model (See Figure 53) can be used to guide multifaceted strategic interventions by addressing the population (victims, offenders, minor children, etc.), organizations (policing agencies, courts, social service agencies, etc.), the environment (culture) and technology (notification systems, recording systems, etc.).

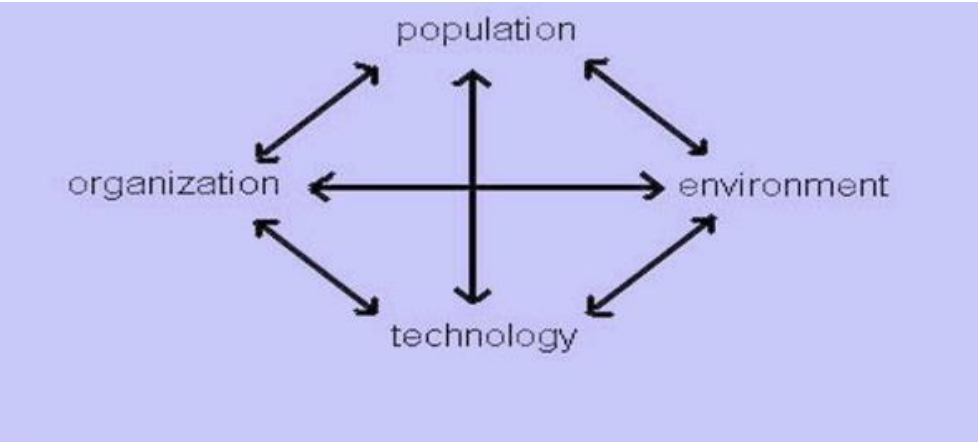


Figure 54: POET Model (Duncan, 1964)

***Population.***

The POET Model calls for focus on the stakeholders impacted by the public policies. The most obvious stakeholders are the IPV victims. In this study, nearly half of the victims were murdered and almost all the surviving victims sustained severe physical injuries. For surviving victims, the impact of IPV can extend beyond the physical injuries. Surviving victims can have long-term physical, mental, and emotional problems (United Nations, 2015). Watson Williams (2018) reported that Jamaican IPV victims had poorer general health, are more likely to suffer from depression, and are more likely to consider suicide than Jamaican women who were not IPV victims. In this study, in several of the cases there were additional victims (including minor children, witnesses or

interveners) who were murdered or who also sustained grave physical injury. Additionally, several of the IPV offenders attempted suicide after the IPV murder. This is consistent with other studies. Pereira et al. (2013) reported nearly half of the killers of the IPV homicide victims in their sample attempted suicide. As such, the exponential impact of the acts of violence detailed in this study cannot be understated and must be a public health concern.

RQ3.2 examined how the IPV risk factors impact victim employment and victim income status. This study failed to show a significant relationship between victim employment or victim income status and IPV murder or IPV severity. However, reflecting gender inequity, the results of this study indicated that, for Jamaican IPV victims, being employed and having income were significantly associated with being male. Additionally, for Jamaican victims, having income was significantly associated with being above age 30. On average, the victims with income were older than victims with no income. For Jamaican IPV victims, being female decreased the odds of being employed and of having income. Male IPV victims were nearly five times more likely to be employed and over seven times more likely to have income than female IPV victims. The findings suggest that public policy should focus intensely on removing barriers to employment and increasing employment opportunities for younger women.

Post-IPV, victims need medical care for physical injuries. This is largely provided by the public hospitals and government-run health clinics. Additionally, mental health counseling can help victims and offenders re-define IPV as unacceptable and inexcusable. Social services can help victims escape violent relationships and protect

themselves. There is currently only one women's shelter and it is located in Kingston. Additional shelters are needed.

The offender's choice of weapon was the only risk factor that gained statistical significance for predicting IPV murder and IPV severity. The knife was the most popular weapon. Holding all other things constant, the use of a gun or a sharp or piercing weapon increased the odds of IPV murder. Use of a sharp or piercing weapon was the more salient predictor. Oddly, while the use of a sharp or piercing weapon had a positive impact on (increased) IPV severity, the use of a gun had the opposite effect. That is, the use of a gun was found to reduce IPV severity. Given the widespread utilization of sharp and piercing objects (such as knives and machetes) as household and work tools, public policies cannot focus on disarming offenders of these weapons. However, public policies can focus on educating offenders on non-violent means of conflict resolution in intimate relationships and the deleterious effects of IPV on all parties, including their children.

***Organization.***

The POET Model notes that organizational action may be critical to alleviate a public problem. In Jamaica, NGOs, schools, churches and other religious institutions can help to support social awareness campaigns to eliminate IPV. But the much of the onus for action would fall on four governmental agencies: the Jamaica Ministry of Health and Wellness, the Jamaica Ministry of Labour and Social Security, and JCF (which is a division of the Ministry of National Security), and the Jamaica Ministry of Justice.

***Jamaica Ministry of Health and Wellness***

Currently, there is only one women's crisis centre which is located in Kingston. It is run by the NGO Women Incorporated with some support from the Bureau of Women's

Affairs, a governmental agency. The crisis centre is primarily staffed by volunteers. Additional women's centres are needed, especially in the rural areas.

***Jamaica Ministry of Labour and Social Security***

This study did not find a statistically-significant relationship between either victim employment or victim income status and IPV in Jamaica. This study's finding of gender inequality in employment is consistent with data from the United Nations Human Development Programme (UNDP) on unemployment in Jamaica. Figure 55 presents data from UNDP's (2019) Human Development Report on the total female-to-male unemployment ratio for Jamaica, the United States, and seven other Commonwealth Caribbean nations (Bahamas, Barbados, Belize, Guyana, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago) spanning over 25 years. The graph illuminates that there has been gender inequality in employment for decades in Jamaica. Over the past 26 years, Jamaican women have seen higher unemployment rates than Jamaican men. With an exception only for 2012 when there was a slight improvement, the ratio has been fairly consistent over the 26 year span. The plight of the Jamaican women is surpassed only by that of the women in Belize and Guyana. It is noteworthy that Guyana is Jamaica's closest rival for grave IPV rates.

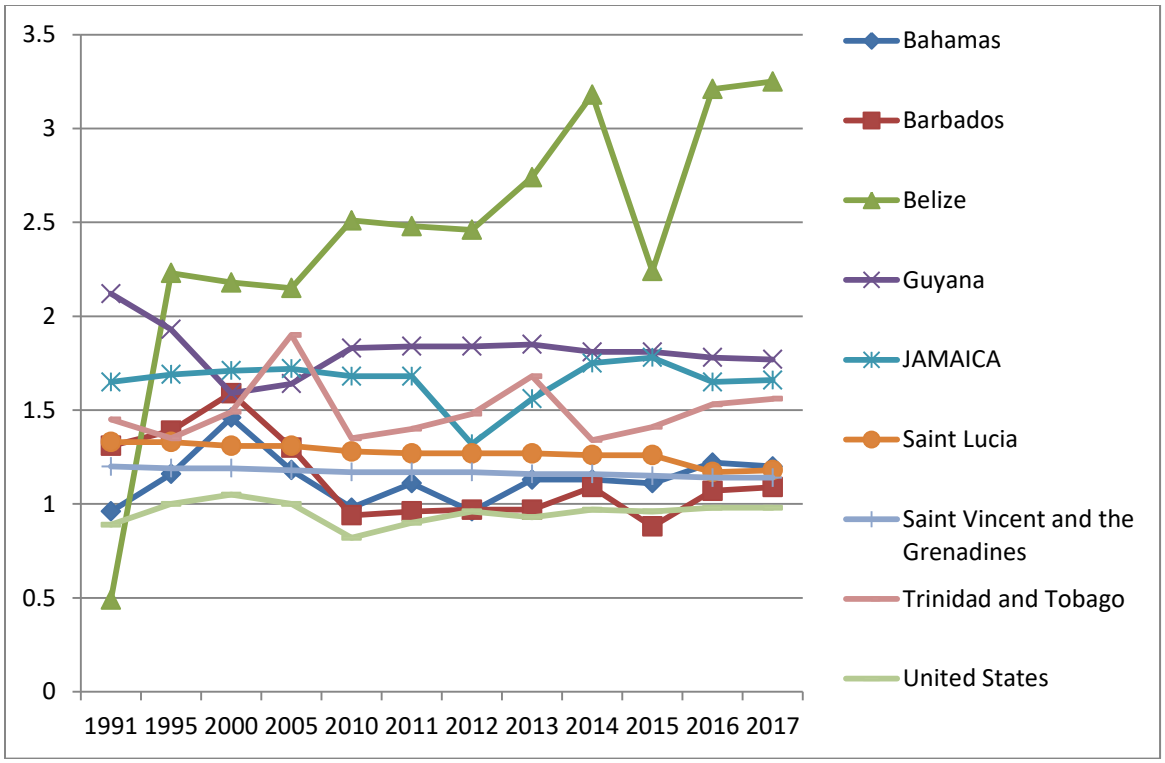


Figure 55: Female-to-Male Unemployment Ratio over Time for Jamaica and Other Nations (United Nations Developments Programme, 2019)

Figure 56 presents data from UNDP's (2019) Human Development Report on gender inequality for Jamaica, the United States, and six other Commonwealth Caribbean nations (Bahamas, Barbados, Belize, Guyana, Saint Lucia, and Trinidad and Tobago). For nearly 25 years, Jamaica has consistently had deplorable scores for gender inequality with little improvement over time. Only Guyana has done worse than Jamaica on gender inequality. Commendably, despite dismal gender inequality in unemployment, Belize is making achievements to promote overall gender equality which may soon be reflected in the unemployment rates. In fact, all the nations (including Jamaica) are showing a small trend of improvement toward gender equality. Public policies in Jamaica should focus on removing gendered barriers to employment and increasing opportunities for gainful employment for women.

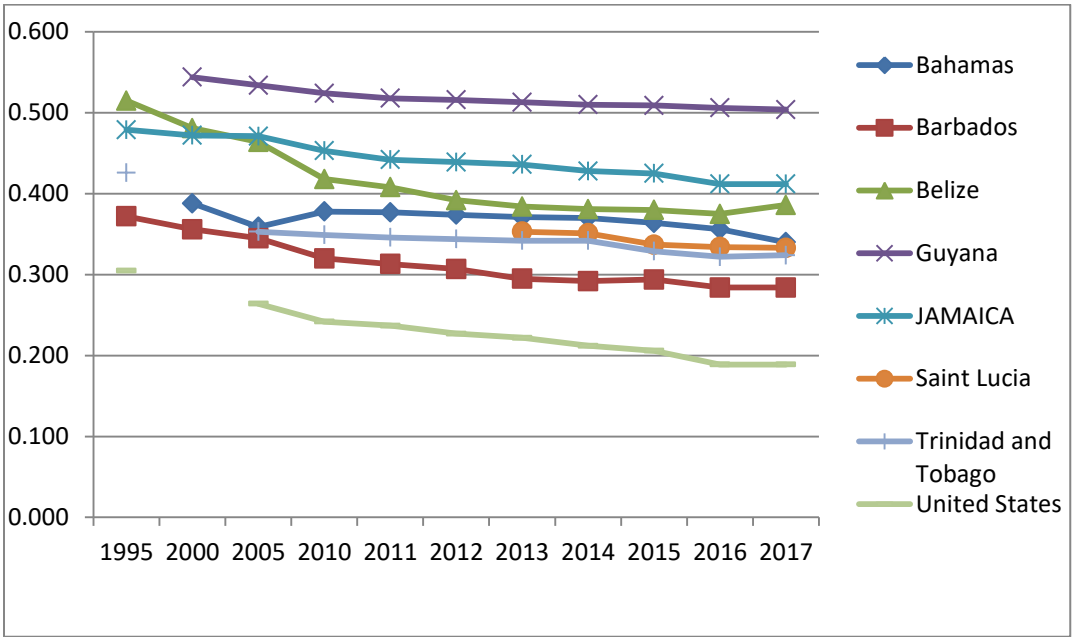


Figure 56: Gender Inequality Index over Time for Jamaica and Other Nations (United Nations Human Development Programme, 2019)

***Jamaica Constabulary Force***

The primary organization of focus is the Jamaica Constabulary Force. The JCF is not known for enthusiastically making their data accessible for scientific research. Their unprecedented willingness to provide this secondary data set is a profound and illuminated signal of the leadership's commitment to alleviating the plight of IPV victims in the island.

Research supports that negative police attitudes can influence the outcome of an IPV call for assistance in less-than-optimal ways for the victims (DeJong, Burgress-Proctor, & Elis, 2008; Logan, Shannon, and Walker, 2006). Such negative attitudes among the police can negate the intended effects of newly-enacted laws to protect IPV victims (Muftic & Cruze, 2014). IPV victims in Jamaica have reported feeling that the constables blamed them for their victimization (Jamaica Gleaner, 2014). Woman

Incorporated reported that victims frequently complained that constables do not treat IPV as a crime and fail to take reports (United States Department of State, 2012; United Kingdom Home Office, 2015). Rather, the constables treat IPV as a private issue or the purview of the male spouse. Thus, the victims are thus "generally invisible in law" due to "tolerant cultural support" (Robinson, 1998; p. 113). Singh (2013) went as far as to suggest that Jamaican constables may themselves be IPV offenders and thus may choose to be derelict in their professional duties. In screening the police reports for the inclusionary criteria, one police report that was not included in this study involved an incident where the offender caught his female partner having sexual intercourse with another man and he brutally assaulted both persons. However, perhaps reflecting cultural or gender bias, the responding constables listed the male lover as the only victim in this incident. Despite extensive injuries, charges for the female intimate partner victim were not pursued. Given cultural acceptance of make hegemony, constables may also choose not to mention male offender's infidelity in the police reports as such behavior is condoned. Efforts to train JCF constables regarding responding appropriately to IPV should be continued and amplified.

IPV risk assessments are not currently being used by constables in Jamaica when they response to IPV calls for service. Given the rapid escalation of IPV severity unmasked in the qualitative research, constables should be trained on employing IPV risk assessments to determine the level of threat and action needed to protect the victim.

In Jamaica, constables are required to have a secondary education with a minimum of four passes on the Caribbean Secondary Education Certificate Examinations. One of the passes must be in English Language. As such, constables

should have the fundamental education needed to write proper reports. The improper grammar and spelling and the lack of details in the police reports calls into question the training provided to the constables on report writing and the institutional emphasis on thorough reporting. JCF would be sage in instituting measures to improve the written reports.

In 2013, JCF began the mandate to note DV in the police reports. JCF classifies the motives for the crimes as gang-related, criminal (but not gang-related), mob killings, not yet established (unknown or undetermined) and domestic. Harriott and Jones (2016) noted that the classifications are "constantly changing in the direction of revealing less" (p. 35). Harriott and Jones (2016) noted that JCF has focused on eradicating gang violence in the nation. This is understandable, given that gang violence has accounted for the vast majority of homicides over the past several decades while domestic violence (which includes IPV) has only steadily accounted for about 6% of homicides (Harriott & Jones, 2016). All crimes between related persons or persons residing in the same household are classified as having a domestic motive. One immediate technological change that can be instituted with minimal cost is to elaborate on the motives. IPV could be its own category. Further, notating IPV and DV on the police reports should be mandated. Related to this, constables would need to be informed and trained to always report motives accurately. Other details that would enhance the police reports are noting the previous history of IPV; alcohol and substance use, including intoxication, of the victim and the offender; noting the relationship between the victim and offender; and detailing the sequence of events. Beyond enabling research, the benefits of improved

report writing extends to a better record of victimization and perhaps eases the difficulty of prosecution and other legal remedies to assist the victim.

Zelcher (2006) recommended officer education as a needed component to combat IPV. In the Jamaican context, constables should receive additional training and education regarding treating IPV as a crime; being sensitive and responsive to IPV victims, including making them aware of available resources; using risk assessments to evaluate the danger faced by IPV victims and acting accordingly; and writing thorough police reports.

***Jamaica Ministry of Justice***

In 1980, the Jamaica became a signatory to the United Nations' Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW). In 1984, the Jamaican government ratified this agreement. The CEDAW obligates governments to strategically implement measures to enhance equality between men and women, and to provide reports accordingly. Yet, the high rates of IPV continued intransigently. Prior to the 1990s, any measures assisting these women came from grassroots efforts of NGOs. Under pressure and receiving funding from UN-WOMEN, in the mid-1990s, the Commonwealth Caribbean governments enacted legislations aimed to eliminate domestic violence in their nations. These legislations represented the region's first attempts to ameliorate the plight of the IPV victims. Like the other Commonwealth Caribbean nations, Jamaica passed The Domestic Violence Act in 1996. Since then, changes to the legislative environment have slowed. Today, a quarter-century later, further improvements to the legislative environment could help alleviate the issue of IPV in Jamaica. Illustratively, criminal actions that are not completed (only attempted) are not

prosecutable as crimes under the current Sexual Offences Act, Larceny Act, and Offences Against The Person Act. These Acts could be amended to allow for the prosecution of attempted crimes.

The Domestic Violence Act (1996, revised 2004)

Jamaica's Domestic Violence Act (DVA) was passed and became effective on May 6, 1996. In 2004, the DVA was revised to widen its breadth to what it is today. (The full act is given in Appendix A). The objective of the DVA was to reduce the alarming levels of IPV in that nation by increasing the victims' access to justice. The actual acts inherent to IPV have always been classified as assaults under Jamaican law. Commendably, the DVA did not limit the definition of 'spouse' solely to persons who are legally married. The act provided for all types of unions, including unmarried lovers who cohabit (colloquially called 'common law marriages') and lovers who have a 'visiting relationship' but no common residence.

The DVA allows for protection (restraining) orders and occupation orders for victims and their children. Similar to restraining orders, protection orders prohibit the offender from harassing; stalking; being within a specified distance; or hurting the aggrieved persons. Occupation orders allow the victims to retain use of the familial home, and the offender may be ordered to continue making the mortgage payments. Violations of the orders could result in fines or incarceration. The DVA allows for incarceration for up to six months for violation of a protection order. The DVA specified a fine of up to $10,000 (about $83US in 2019) for a violation of a protection order. The DVA allows for ex parte orders when the perpetrators cannot be located. Although extendable by a new order, the occupation orders were limited to three months.

Interestingly, the DVA specifically allows constables to apply for protective orders for children, but not adults. But no study has addressed how constables have made use of this provision. This tool could be utilized when there are children as co-victims and the spouse is unwilling to apply for the protection order.

The passing of legislation without proper enforcement does not deter IPV rates. Spooner (2009) compared the IPV rates in two neighboring Commonwealth Caribbean countries, Barbados and St. Kitts. Like Jamaica, Barbados had passed legislation to allow for protection orders, while St. Kitts had not. After performing a survival analysis, Spooner (2009) found negligible differences in the hazard of repeat IPV between women in the two islands nations. There is a disconnect between the passage of the legislation and the intended effects of reduced IPV.

The United Kingdom Home Office (2015) reported that, based on their previous experience, women who reported IPV may be discouraged from reporting again as IPV cases are subject to lengthy investigations while the victims remain at eminent risk. Supporting the United Kingdom Home Office's assertion, this qualitative analysis revealed one murdered victim who had a pending court case at the time of the murder. Her murder was a subsequent attack. Speedier action on the IPV cases in criminal court and protection orders and occupation orders in civil court may reduce the risk for IPV victims.

The Larceny Act (2005)

The crimes of burglary (including house-breaking to commit a felony and house-breaking with the intent to commit a felony), larceny, and robbery are covered under Jamaica's Larceny Act (revised 2005). But Part IV Section 58-1 specifically addressed

the property of married couples. Reflecting a profound gender bias, unless the couple was estranged by the husband's behest, the act gives no recourse to a wife. Part IV Section 58-1of the Larceny Act states:

> A wife shall have the same remedies and redress under this Act for the protection and security of her own property as if she were a feme sole: Provided that no proceedings under this Act shall be taken by any wife against her husband while they are living together as to or concerning any property claimed by her, nor while they are living apart as to or concerning any act done by the husband while they were living together concerning property claimed by the wife, unless such property has been wrongfully taken by the husband when leaving or deserting or about to leave or desert his wife.

In sum, a wife cannot claim that a husband has stolen her property unless the husband has deserted her. Wives cannot bar husbands from taking marital property or property she claims as hers if she leaves him. Further, if the couple is not estranged, wives cannot find any recourse from their husbands under this act. The qualitative research revealed several instances where the offender took, damaged, or destroyed the property of the victim. Under this act, these victims may not have had recourse.

The qualitative study revealed that the female partner most often had to leave the mutual home without any of the possessions. The wording of Part IV Section 58-1of the Larceny Act provides the background for this practice. The law forces wives to leave the marital home without her possessions, and thus estrangement would entail grave financial loss and economic retardation. If the law is imposed strictly as written, then common-law wives and cohabiting girlfriends have more protections under The Larceny Act than

wives. Amending this law would help to alleviate gender inequity in Jamaica and empower wives to leave abusive relationships.

The Sexual Offences Act (2009, revised 2011)

In 2009, the Sexual Offences Act was enacted. The Sexual Offences Act repealed some provision of The Offences Against The Person Act and clarified the definition and punishment of sexual crimes. Despite the 2009 and 2011 revisions of Jamaica's Sexual Offences Act, The Sexual Offences Act criminalizes marital rape only if the spouses are legally separated, if there is a protective order or occupation order, or if the spouse has a sexually transmitted disease. While this act is another legislative advancement, the act is limited in its definition of marital rape. Further, the act does not address common law spouses. and there were legal proceedings in place to seek divorce or if the spouse had an undisclosed sexually transmitted disease. Otherwise, there is assumed irrevocable consent for sexual relationships between the spouses. Note that the Sexual Offences Act does not recognize unsuccessful attempts to rape, grievously sexual assault, or forcibly abduct.

***IPV Death Review Panels***

This study revealed that much more needs to be learned in order to successfully eradicate IPV in Jamaica. Although some improvements are needed, the laws are in place. Additionally, the JCF leadership is displaying commitment to eradicating IPV. But the persistence of IPV rates indicates that there are system-wide gaps. Ideally, ideas for further improvements or interventions would come from other Commonwealth Caribbean nations. However, these nations are also struggling with addressing IPV and none can yet boast successful evidence-based interventions. A successful measure to address IPV that was instituted in Australia in 2009 is domestic violence death review panels (Bugeja,

Butler, Buxton, Ehrat, Hayes, McIntyre, & Walsh, 2013). These domestic violence death reviews are conducted by a multidisciplinary panel that identifies systematic gaps in service by the police and other community agencies that may have contributed to the domestic violence homicide. Additionally, domestic violence death reviews are used to identify opportunities for intervention and times when protective actions are critical.

In Australia, the domestic violence death review panels include professionals whose work intersects with domestic violence and IPV (such as police personnel, social workers, child protection workers, and coroners), clinicians, and researchers. Death review panels are now used successfully in the United States and Canada also (Bugeja et al., 2013). IPV death review panels may be useful in Jamaica. In Jamaica, NGOs whose goals are reducing gender violence (such as the Association for Women's Organisations in Jamaica (AWOJA) and Women Incorporated) could also be involved in the IPV death review panel. It would also be appropriate for the government agency Bureau of Women's Affairs (BWA) to be involved in the IPV death review panel. Joining BWA, representatives from the aforementioned four government ministries could also be involved in the death review panels. As reported by the Guinness Book of World Records (2018), Jamaica has the record for the most churches per square mile. Research suggests that religious involvement has a negative impact on IPV perpetration by both men and women (Ellison & Anderson, 2001). In his national sectorial address *Making Strides Towards a Safe and Secure Jamaica*, the then Minister of National Security, Peter Bunting (2013) noted that "… the Church can be a powerful catalyst for changing that sub-culture of violence" (p.18). It would also be appropriate for religious leaders from the

Jamaica Umbrella Group of Churches be involved in IPV death review panels so that they can relate to the gravity of such cases.

At the death review panels, data is compiled and analyzed to allow for evidence-based recommendations for public policy. The strength of the death review panels comes from the commitment of the government and the organizations (such as the NGOs and JCF) to being receptive and responsive of the recommendations. Such IPV death review panels may be successful in identifying the systematic gaps, challenging areas, and areas of opportunity to alleviate IPV in the Jamaican context.

***Environment.***

According to the POET Model, the environment contributes to public problems. While Duncan focused on the physical environment, this review focuses on the cultural environment in Jamaica. This study illuminated that family members and community members often acted as guardians to intervene and to prevent the IPV. Acts of IPV were even met with outrage and retaliation from the community. This is contrary to the popularly-held notion that Jamaicans continue to view IPV as a private issue that is acceptable in certain circumstances. Rather, Jamaica may be moving in concert with the worldwide trend of reduced acceptance of IPV by both women and men (United Nations, 2015). As such, Jamaica may be ready for social awareness campaigns that denounce IPV, challenge any remaining cultural support, and ignite bystander action. One such campaign was attempted but failed in 1998-2000 (Muturi & Donald, 2006). The failure was largely due to misappropriation of grant funds, so that a full-scale social awareness campaign was never truly launched. Jamaica may be ready for such a social awareness campaign again to denounce the cultural acceptance of IPV.

***Technology.***

According to the POET Model, technology can be leveraged to alleviate public problems. Technological improvements could help with the alleviating IPV in Jamaica. Within the JCF, technological changes can alleviate IPV by allowing for improved response and greater tracking of related issues for all crimes, not just IPV. Unfortunately, the JCF stations are lacking adequate computers for constables to record crimes quickly and research matters efficiently. To date, crimes are still recorded in large tomes. Further, arrests warrants and orders (such as protection orders for IPV victims) have to be photocopied or faxed for dissemination. A unified network is still not in place. Data is lost in the transfer of information by a centralized statistical team, as demonstrated by the missing and incorrect data found in the dataset used for this study. JCF has benefitted from a few grants that have provided some computers, photocopiers, and facsimile machines, but have not fully met the need. The availability of computers in all JCF stations and facilities and the implementation of a networked police reporting system, including document storage, have to remain key goals for JCF.

## Summative Logic Model

A concerted effort involving multiple organizations, the Jamaican government, JCF, and the community is needed to alleviate IPV in Jamaica. Global Scripture Impact (2012) concluded “Although domestic violence makes headlines daily, few organizations or institutions have developed effective methods for addressing the problem and even fewer have developed programs working with perpetrators of violence” (p. 9). A logic model could be helpful in formulating interventions for IPV in Jamaica. Naimoli, Frymus, Wuliji, Franco, and Newsome’s (2014) described a logic model as “maps the

intended relationships and causal connections between what a program plans to do and what it hopes to achieve. A logic model commonly includes contextual factors that may positively or negatively influence a program's implementation and the attainment of results" (Naimoli et al, 2014; p. 2). Logic models are often depicted pictorially. The results of this study were used to compose a logic model for alleviating IPV in Jamaica. This logic model is presented in Table 43. Using the POET Model to enhance comprehensiveness, the activities of the logic model are given under population, organization, environment, and technology as previously discussed. Admittedly, the strategic interventions given in the logic model will be limited by available funding.

Table 43: Logic Model for Alleviating IPV in Jamaica using the POET Model

| POET Model | Inputs | Activities | Outputs | Proximal Outcomes | Distal Outcomes |
|---|---|---|---|---|---|
| **Population**<br><br>Offenders<br>Victims<br>Children<br>Community | High IPV rates | Educate victims, offenders, and involved third parties about:<br>1. behaviors in the Duluth Power and Control Wheel<br>2. inappropriateness of IPV<br>3. deleterious effects of IPV, including for children<br>4. non-violent alternatives for conflict resolution<br><br>Educate victims about available resources, including the Women Centre, protection orders and occupation orders | Increased number of protection orders<br><br>Increased number of occupation orders<br><br>Reduced IPV<br><br>Increased use of other conflict resolution tactics<br><br>Increased intervention by others | Reduced IPV rates | Gender equity in employment<br><br>Elimination of gender-based violence, including IPV<br><br>Increased and improved IPV research |
| **Organization**<br>NGOs, government, churches | High IPV rates | Establish IPV death review panels | Ongoing identification of system-wide failures | System-wide changes | |
| Jamaican Ministry of Labour | Gender inequity scores<br><br>Unemployment rates | Identify and remove/mitigate barriers to employment for young (under 30) women<br><br>Increase employment opportunities for young women | Increased employment for younger women<br><br>Improved response and recording of IPV | Increased employment for women | |
| Jamaica Ministry of Health and Wellness | Poorer general health and extensive injuries of IPV victims | Build new women's crisis centres<br><br>Provide mental health counseling for IPV victims and their children | Ameliorate victims' health | Improved health for IPV victims and their children | |

| POET Model | Inputs | Activities | Outputs | Proximal Outcomes | Distal Outcomes |
|---|---|---|---|---|---|
| **Organization** | | Educate constables on:<br>1. empathy for victims<br>2. disapproval of IPV<br>3. risk assessments for IPV calls<br>4. report writing | Improved police reports | Increased justice for victims | Gender equity in employment |
| Jamaica Constabulary Force | IPV police reports | | Increased number of protection orders and occupation orders | Reduced re-victimization | Elimination of gender-based violence, including IPV |
| | | Mandate noting DV and IPV in police reports | Increased IPV arrests | Reduced IPV deaths | Increased and improved IPV research |
| | | Mandate arrest for all felony-level IPV | Increased protection of victims | Increased safety for IPV victims | |
| Jamaica Ministry of Justice | Offences Against the Person Act | Ease and quicken applications and orders for protection and occupation. | Increased use of protection orders and occupation orders | | |
| | Domestic Violence Act | Allow prosecution of attempted crimes. | Reduced sexual IPV | | |
| | Sexual Offences Act | Criminalize marital rape in all circumstances. | Increased prosecution of sexual IPV offenders | | |
| | Larceny Act | De-criminalize the taking of possessions by wife | Reduced economic loss for wives who separate from their abusive husbands | | |
| **Environment** | Cultural acceptance of IPV | Social awareness campaigns islandwide:<br>1. advocate the end of IPV<br>2. educate about IPV's exponential deleterious effects<br>3. inform about IPV resources<br>4. encourage intervention by the family and the community<br>5. challenge cultural norms and beliefs that foster IPV | Increased public awareness of deleterious effects of IPV<br>Increased interventions by capable guardians<br>Reduced acceptance or justification of IPV by all parties | Reduced IPV | |

| POET Model | Inputs | Activities | Outputs | Proximal Outcomes | Distal Outcomes |
|---|---|---|---|---|---|
| **Technology** | Poor record keeping | Implement a networked police reporting system<br><br>Increase number of computers in police stations | Improved policing of all crimes | Reduced crime | Gender equity in employment<br><br>Elimination of gender-based violence, including IPV<br><br>Increased and improved IPV research |

# APPENDIX A: UCF IRB LETTER

University of Central Florida

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

## Determination of Exempt Human Research

From: **UCF Institutional Review Board #1**
**FWA00000351, IRB00001138**

To: **Marsha Fraser**

Date: **May 31, 2018**

Dear Researcher:

On 05/31/2018, the IRB reviewed the following activity as human participant research that is exempt from regulation:

| | |
|---|---|
| Type of Review: | Exempt Determination |
| Project Title: | A Mixed-Methods Study of Risks Factors Contributing to Victim Unemployment and Intimate Partner Violence in Jamaica |
| Investigator: | Marsha Fraser |
| IRB Number: | SBE-18-14050 |
| Funding Agency: | |
| Grant Title: | |
| Research ID: | N/A |

This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are made and there are questions about whether these changes affect the exempt status of the human research, please contact the IRB. When you have completed your research, please submit a Study Closure request in iRIS so that IRB records will be accurate.

In the conduct of this research, you are responsible to follow the requirements of the Investigator Manual.

This letter is signed by:

Signature applied by Gillian Morien on 05/31/2018 02:32:50 PM EDT

Designated Reviewer

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# APPENDIX B: MEASURING THE SEVERITY OF INTIMATE PARTNER VIOLENCE IN JAMAICA

**Consent**

This study is being conducted by Marsha Amoy Fraser of the University of Central Florida, as part of her doctoral thesis. The purpose of the study is to add to the body of knowledge regarding intimate partner violence (also called domestic violence) in Jamaica. You are being invited to participate in this survey. The decision to take part is up to you. If you chose to participant, you will be asked to complete a survey where you will rate the severity of 25 acts of intimate partner violence taken verbatim* from Jamaican police reports. (*Elements of identity and dates have been removed from the narratives or replaced with fake identifiers). The acts described in these police reports can be violent and gruesome, so reading these narratives may be upsetting. The entire survey should lake about 15 minutes. Participation is voluntary. You can stop responding at any time. You must be 18 years of age or older to take part in this study. Do you consent to participate in this survey?

**Demographics**

1. What is your age: _____ (in years)

2. Gender:
    a. male
    b. female
    c. other
    d. Decline to answer

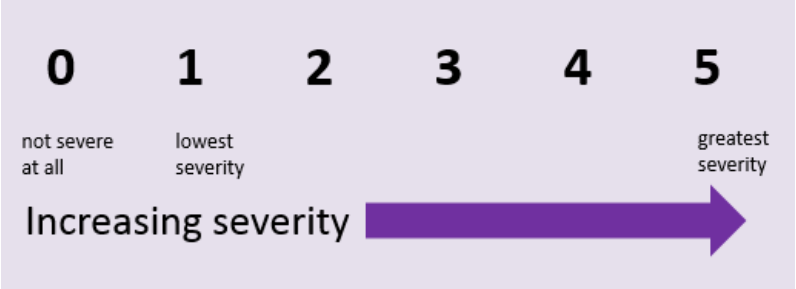
3. Are of Jamaican heritage? Choose one.
    a. Yes. I am a native (born) Jamaican residing in Jamaica.
    b. Yes. I am a native (born) Jamaican, but I now reside in another country.
    c. Yes. I was not born in Jamaica, but I have Jamaican parent(s) or grandparent(s).
    d. No.

4. Which of the following best describes your occupation? Choose one.
    a. Executive Leader/ Senior Manager
    b. Professional
    c. Legal/ Law/ Law Enforcement
    d. Military
    e. Medical/ Paramedical
    f. Educator/ Social Services/ Mental Health
    g. Hospitality/ Sales/ Personal Care
    h. Agricultural/ Farming/ Fishing
    i. Skilled Trade
    j. Unskilled Work
    k. Student
    l. Unemployed
    m. Retired
    n. Other
    o. Entertainer

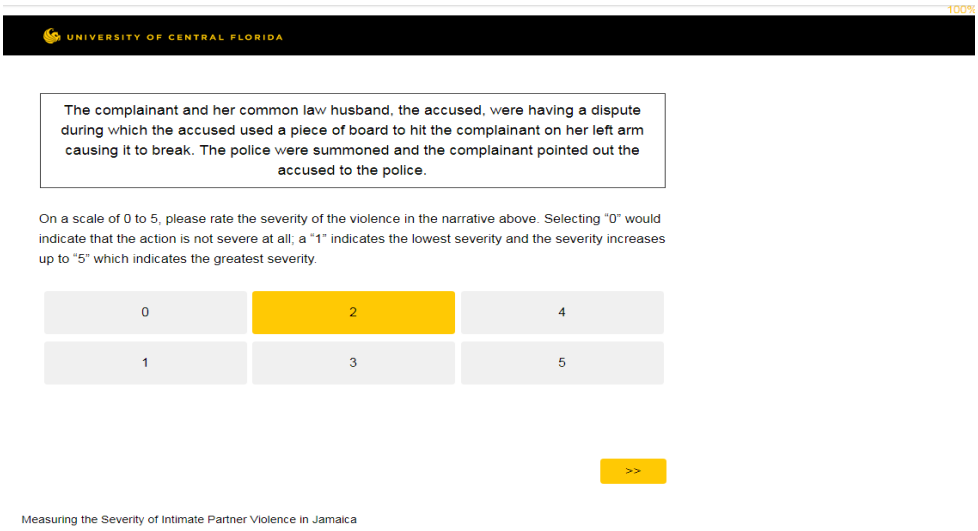
**Narratives of Intimate Partner Violence**

Instructions

You will be shown 25 narratives from Jamaican police reports documenting cases of intimate partner violence. On a scale of 0 to 5, I would like your opinion on the severity of these actions. Selecting "0" would indicate that the action is not severe at all; a "1" indicates the lowest severity and the severity increases up to "5" which indicates the greatest severity.




The respondents will be shown 25 randomly-selected narratives of the 152 narratives. An example of what the respondent is shown is below.




**Scoring**

The mean score of these items is computed by summing the value of the items and dividing by the applicable number if responses. Higher scores are indicative of greater severity.

# APPENDIX C: DE-IDENTIFIED NARRATIVES FROM JAMAICAN POLICE REPORTS

Table 44: De-Identified Narratives

| Narrative | IPV Raw Score | IPV Z Score |
|---|---|---|
| About 1am on the [Date] victim boyfriend known as John went to her home and called her out and later relative heard her three (3) months baby crying and noticed that she was not inside. A report was then made to the police. | NA | NA |
| Accused now deceased and complainant who were involved in a relationship. They both resides at mentioned location. They had an argument after they attended the [Police station] where the complainant made a threat report against accused. | NA | NA |
| Accused was seen by a security guard dragging an object wrapped in a blue tarpaulin along a foot bridge. The guard later summoned the police. On arrival of the police the partially decomposed body of the now deceased was found wrapped in the tarpaulin. | NA | NA |
| Both deceased and accused were involved in a visiting common law relationship when on the mentioned date the deceased visited the accused home, while there an argument developed between them where the accuse was accusing the deceased of being unfaithful. | NA | NA |
| From information received the now deceased was seen leaving her home in the company of her common-law husband in his grey 1991 Nissan sunny motor car about 2:30 pm [Date]. When Jane didn't return home as expected Mary of the said address attended the [Police Station] and made a missing person report. About 1pm [Date] a citizen stumbled upon the body of a female along a section of the river bed in the [Town] area. The police were summoned and on their arrival they observed the body which was later identified as Jane who was clad in a orange blouse, blue jeans shorts and one foot of gold looking slippers on her right foot. The body had bruises around the neck. The body and scene were processed by [Detective] of the [Police Station] then transported to the [Hospital] and confirmed dead by [Doctor] at 5:40 pm then removed to the [Funeral Home] for storage pending post mortem. The said motor vehicle belonging to her common-law husband was also processed. | NA | NA |
| On the given day, date and time, relatives of the victims went to check on them, having not heard or seen them throughout the day. the relative on making enquiries acquired a duplicate key to the premises, and made further enquires, where the lifeless was found. | NA | NA |

| | | |
|---|---|---|
| Suspect who is a licence firearm holder was home with the complainant who is his girlfriend where they were both playing in their bedroom. Complainant during the said playing took up suspect licence firearm which was charged and on the bed. | NA | NA |
| The now deceased attended the [Police Station] earlier before the incident and reported a case of Threat against the suspect whom she had relationship with. The suspect then came to the [Police station] and was warned by the police. | NA | NA |
| The victim and the accuse who are now deceased shared an intimate relationship which produced a seventeen (17) years old female child. They have been having disputes recently, after which accuse her of engaging in another relationship with another man. | NA | NA |
| The victim and the suspect was in a relationship for the past five years. During the last four weeks the victim started acting strange. John warned the victim that if she does not want him, she must not take his money. | NA | NA |
| Victim and accuse shared a common law relationship has a long standing dispute, they had an heated argument that resulted in a fight. The accuse ran into a next room and shut the door, the victim enter the house through the a back door and continued to hide. | NA | NA |
| Victim and accused who is her common law husband were walking along the roadway when an argument developed between them. He pulled a knife and inflicted several stab wounds all over her body and left her along the roadway. A passing motorist took her to the [Hospital] where he was pronounced dead by [Doctor]. The body was removed to the morgue for post-mortem. | 4.976 | 1.342 |
| Victim and accused were involved in a relationship that recently ended. Victim was at her bar when accused pounced upon her and threw a liquid substance which appeared to be gasoline on her. He then made several attempts to light her on fire, but she managed to run. She ran to the rear of her landlord's premises where accused caught up with her and threw her over a railing causing her to fall. He went to where she fell then used a knife to slash her throat. She was taken to the [Hospital] where she was pronounced dead by [Doctor]. The body was removed to the [Funeral Home] pending post-mortem. The accused was charged on completion of a caution statement. | 4.975 | 1.339 |

| | | |
|---|---|---|
| The victim and the suspect had an affair that went sour and as a result they had a matter pending in the [Court]. On [Date] about 12:25pm the suspect John was seen chasing the victim Jane with a machete in his hand. The victim tripped and fell to the ground and the suspect John went over her and used the machete that he had to chop the victim several times in the head, back and hands. The suspect was pulled away by his mother. The police who were early on the scene transported Jane to the hospital where she succumbed to her injuries while undergoing treatment. She was pronounced dead by [Doctor] and her body was later removed to the [Funeral Home] to await post mortem examinations. The scene was processed. | 4.955 | 1.285 |
| Effected by John and his wife Jane were both at home when John got up to go to Kingston to fulfil an appointment at the hospital and shortly before leaving out he used a piece of iron pipe to hit his wife several times on her head killing her on the spot. He then left to Kingston to fulfil his appointment and returned home about 3:30pm where he made an alarm that his wife was killed. The police was summoned and the body of Jane was seen lying on her back in a pool of blood with multiple wounds to the head and appeared dead. The body and scene was processed. The body of Jane was confirmed dead at the [Hospital] by [Doctor] and removed to [Funeral Home] pending post mortem examination. On [Date] John gave a statement under caution confessing to the killing of his wife Jane and took the police to an area where he handed over the murder weapon to them. | 4.952 | 1.277 |
| Victim and accused who are couple, had a dispute during which suspect pulled a knife. He used same to inflict several stab wounds to victim's head, chest, back and hands. She was taken to the where she was pronounced dead by [Doctor]. | 4.95 | 1.271 |
| Victim and his girlfriend had a dispute during which she used a knife to inflict stab wounds to his neck and chest. He was taken to the [Hospital] where he died whilst being treated. The body was removed to the morgue for post-mortem. | 4.949 | 1.268 |
| Victim and accused who were in a common-law relationship had an argument. Victim went to accused workplace which is a bar where the argument continued. They went outside the car where the argument developed into a fight when they fell to the ground. Accused pulled a knife and inflicted stab wounds to victim's left eye, right side and lower back. He was taken to the [Hospital] where he was pronounced dead by [Doctor]. The body was removed to the morgue for post-mortem. | 4.932 | 1.222 |

| | | |
|---|---|---|
| During a dispute between the suspect and the now deceased, the suspect used a brown handle knife to stabbed now deceased all over her body killing her on the spot. The scene and body were processed. One (1) brown handle stainless steel knife, one (1) black & grey handle scissors and blood samples were retrieved and secured as exhibits. The body was transported to [Hospital] where it was pronounced dead by [Doctor] at 3:15am, [Date]. | 4.929 | 1.214 |
| Now deceased (Jane) and John who is her common law husband had a dispute about their estrange relationship. This dispute developed into a fight, John then went into the kitchen and took up a knife and stab the now deceased in the right side of her face. Jane was rushed to the [Hospital] by a citizen but was pronounced dead upon arrival by [Doctor] at 6:57pm. The body of the now deceased was removed to the [Funeral Home] pending post mortem examination. | 4.925 | 1.203 |
| Victims who are a couple was at home sleeping when suspect who is the father of Jane's child, forced open the kitchen window to house. He entered the house and fired shots hitting Jane in the head and also hitting her boyfriend Joe in the head, shoulder, hands and thighs. Both victims were taken to the [Hospital] where they were pronounced dead by [Doctor]. The bodies were removed to the morgue for post-mortem. | 4.921 | 1.192 |
| Jane and accused was involved in a intimate relationship. Jane ended the relationship and returned to her mother's house. Accused threatened to kill Jane if she did not return to his house. Jane ignored him, the accused man armed himself and killed her. | 4.919 | 1.187 |
| Victim, who is now deceased, was in a relationship with the accuse. She told the accuse the relationship was over and he was in the process of trying to win her back. On Thursday [Date] at about 8pm victim left her home with the accuse to purchase food and she has not been seen alive since Victim's mother attended the [Police Station] and reported her missing. On [Date] citizens conducted a search for the victim, her body was found in thick vegetation on [Road] and the police was alerted, the body was seen clad in black and white, purple and green dress around her chest area, the rest of her body nude. The body had what appeared to be wounds to the head and face. The scene was processed. | 4.909 | 1.16 |

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| Accused and victim who is his common-law wife had a domestic argument which turned into a physical fight during which time it is believed that accused used a sharpened screw driver to stab victim several times in her neck after which he tied a piece of electrical wire to the roof of his bedroom and the other end around his neck and hanged himself. The police was alerted and the location visited. Accused body was seen in a upright position with one end of a piece of electrical wire around his neck and the other end tied to the roof of his bedroom. Victim was seen lying on her left side in a pool of blood with what appears to be stab wounds to her neck in the bathroom. The scene and bodies were processed. One sharpened screw driver, one machete and blood samples were taken from the scene as exhibits. The bodies were later confirmed dead at the [Hospital]. | 4.907 | 1.154 |
| Victim and suspect shared a common-law relationship and operate a shop in the [Shopping Mall]. The couple occasionally sleep at the [Shopping Mall] at nights. An argument developed between the couple over domestic matters, during which suspect used a knife to inflict several stab wounds to victim's neck, chest, back and forearms. Suspect also received a wound to the left side of neck. Both were taken to the [Hospital] where victim was pronounced dead by the [Doctor] and suspect admitted in stable condition. He is placed with a police guard. Victim's body was removed to the morgue for post-mortem. | 4.900 | 1.135 |
| Both deceased who shares a common-law relationship had a domestic dispute, during which Jane retired to bed when its alleged John took possession of Jane's service pistol and shot her three (3) times whilst she was asleep then shot himself. The police was summoned, on arrival of the police, Jane was seen lying on a bed on her back with gunshot wounds to her head, while John was seen lying on the floor with gunshot wound to the right side of his chest. The scene and bodies were processed, four (4) 9mm spent casing, three (3) live rounds and blood samples were taken from the scene. Both bodies were confirmed dead at the [Hospital] by [Doctor]. | 4.897 | 1.127 |
| Victim and his girlfriend had a dispute during which she pulled a knife and inflicted a stab wound to victim's chest. He was taken to the [Hospital] where he was pronounced dead by the doctor on duty. The body was removed to the morgue for post-mortem. | 4.891 | 1.111 |

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| Victim who was a [other Caribbean country] national and has been living in Jamaica over the past ten years was married to the suspect. They had been separated for five years and victim returned home to [another parish] where he was from. Suspect visited the house on [Date] where victim was residing with his present girlfriend who is in an advanced state of pregnancy, an argument developed and the police were summoned as suspect wanted to get the girlfriend out, however this was resolved by the police and suspect was given a room by a friend of the victim to stay with her five year old daughter who is also the victim's child. Some time after 09:00 pm on Monday [Date] an argument developed between suspect and victim when suspect used a knife to stab the victim in the right of his upper chest causing him to collapse to the ground. The police were summoned and the victim was found lying in a pool of blood clad in red t-shirt, white shorts and a pair of brown shoes. Suspect was seen sitting on the veranda with a blue and white open blade knife in her hand with blood on it. The body was removed to the [Hospital] where he was pronounced dead by [Doctor]. Accused was arrested with the murder weapon. She was questioned in the presence of her attorney and charged at [Date] at 5pm. | 4.889 | 1.105 |
| Deceased was walking home with her brother [Michael] when she was accosted by the suspect [John] who she had a common law relationship with, the suspect asked deceased where she was coming from and deceased responded by telling the suspect he cant asked her that because they are no longer together. Suspect then brandish a machete and decease ran off the suspect chase decease and caught up with her and inflict several chop wounds to her body. the deceased brother saw what was happening and called out to suspect who attacked the deceased brother who ran away and suspect made good his escape in nearby bushes. the decease was later found in nearby bushes suffering from chop wounds to her upper right shoulder, both eyes, right elbow left wrist almost severed. She was taken to the [Hospital] where she died on arrival. She was pronounced dead by doctor at the [Hospital]. The scene was processed. | 4.884 | 1.092 |
| Allegations are that the now deceased and his common law wife were at home when a dispute developed during which the common law wife used a kitchen knife to inflict a fatal wound to the chest area of the deceased. The deceased was rushed to the [Hospital] by residents where he was pronounced dead on arrival by [Doctor] about [Date]. The body was then removed to the [Funeral Home] pending the post mortem examination. The scene was photographed and processed. Recovered from the scene were blood samples and one kitchen knife covered with blood. | 4.882 | 1.086 |

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| Both victims were in a common law relationship that had produced a two year old son. The relationship between both parents had gone sour; hence, they separated and were living at different residence. Jane went to pick up their son at the [Daycare Center] when it is alleged that an argument developed between she and John who pulled his licensed pistol from his waistband and fired several shots hitting Jane to the face, back and left palm. John then placed the firearm to the right side of his head and fired a single shot killing himself. An off duty police personnel whom was in close proximity to the scene quickly secured John's firearm. The police were then summoned and on their arrival, the lifeless bodies of both persons were seen lying in the yard with gunshot injuries. The bodies were taken to the Hospital where they were pronounced dead by [Doctor] at 11:40 pm after which they were removed to the [Funeral Home] for storage pending post mortem. | 4.878 | 1.075 |
| Complainant has been married to the accused for over 20 years, he told her to move out her belongings as he does not want her there anymore. The complainant was in the process of packing and moving her stuff when the accused used a knife to slash her throat. | 4.864 | 1.037 |
| Complainant was at home with an employer when suspect who is her husband came home. An argument developed between them over cell phone when the employer left. Shortly after complainant was heard screaming for help and she was found with chop wounds to the head and forehead. She was taken to the [Hospital] then transferred to the [Hospital] where she is admitted in serious condition. Victim later succumbed to her injuries on [Date]. | 4.853 | 1.007 |
| Complainant and accused were involved in a common law relationship. Both complainant and accused were at home when neighbour reportedly hearing a strange sound and screaming coming from the house. Citizens later went and made checks and discovered the body of Jane covered with banana trash in brushes behind the house. The police was summoned and the scene was processed. The body has stab wounds to the right side of the face and back of neck. Blood clothing items sheet and a knife belief to be the murder weapon were taken from the scene. Suspect John was taken into custody in relation to the murder. Preliminary investigations suggested that the murder resulted from domestic dispute. Body was taken to the [Hospital] where it was pronounced dead by [Doctor] and was later transported to the [Funeral Home] awaiting post mortem examination. | 4.848 | 0.994 |

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| Circumstances are that the now deceased shared an intimate relationship with the suspect John of [Location]. On the [Date] she was at home with John when an argument developed between them. She ran from the house into the back yard of her neighbour Michelle. Michelle reported hearing screams coming from the deceased house and went outside to investigate, She called out but did not hear or see anyone. She went back inside her house after which she heard someone fell to the ground outside. She went outside and saw someone she recognized as the deceased (Jane) saying John. The witness called out to John who answered her by calling her name, she spoke to both persons and went back into her house. About a minute later she heard a struggle and went outside and saw a man running from her back yard with two men chasing him, one of whom threw a stone at the man running. She later went in search of the deceased with the help of other persons and saw the body of the deceased in her back yard lying on her back with wounds to her head and blood all over her face. Deceased was rushed to the [Hospital] where she was pronounced dead by [Doctor]. | 4.844 | 0.983 |
| John and Jane who live in a five bedroom apartment board house has been having dispute over domestic matters which resulted in a fight on Tuesday [Date]. it is said that Jane wanted to end the relationship. On Sunday [Date, 5 days later] the couple was heard arguing and John was seen with a jug of gas entering the house. shortly after neighbor saw fire and smoke coming from the house and alert the police and fire department. The house and its content was completely destroyed. The badly burnt body of John was found laying face down on the verandah while Jane's body was found in the kitchen on its face. The remains were taken to the [Hospital] where they were pronounced dead by [Doctor] and later transfer to [Funeral Home] for storages. The scene was processed. | 4.833 | 0.953 |
| Victim was stabbed on the right side of her neck whilst she was sitting in a minibus by the accused who happens to be her child's father. Now deceased was rushed to the [Hospital] where she succumbed to her injuries whilst undergoing treatment. Accused was held and beaten by an angry mob and was later rescued by the police. He too was taken to the [Hospital] and treated for injuries he sustained and later handed over to the [Police]. The body of the now deceased was removed to [Funeral Home] for storage and post mortem at a later date. | 4.833 | 0.953 |

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| Victim and accused were involved in a common law relationship and had been having an on going conflict. Victim was at home with her 2 years old son and grandmother when suspect came there, where an argument developed between both parties and the grandmother intervened. After a short while the argument develop again and citizens saw victim running from the house and been trace by the suspect who caught up with her and took her back into the house. Men working next door reportedly heard loud screams coming from the house and shortly after saw smoke coming from the house. They went to check and force themselves into the house where they attempted to put out the fire. Whilst they were putting out the fire they found the body of victim wrapped in a sheet under a mattress. They then summoned the police and fire unit. On the arrival of the police victim was seen with large wounds to the front and back of head and right hand was partially burnt. She was rushed to the [Hospital] where the body was pronounced dead by [Doctor]. The fire unit totally put out the blaze. | 4.83 | 0.945 |
| Victim and suspect who share a common-law relationship were at home when an argument developed. Suspect ran into the kitchen and picked up a knife and attacked victim, who managed to take the knife away from her. She went back for another knife, attacked victim again and inflicted stab wounds to his chest. He was taken to the [Hospital] where he was pronounced dead by [Doctor]. The body was removed to the [Funeral Home] pending post-mortem. | 4.829 | 0.942 |

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| From information received from victim's mother Mary heard a loud explosion in the early hours of the morning sounding like gunshot. Shortly after (Constable) John who is attached to the [Police Station] called Mary and told her that her daughter who is the now deceased was shot and injured outside. It is alleged that Mary went outside and joined John where she saw the body of her daughter who is the spouse of John lying on the road way. John then went into his Black Nissan B12 motor car and drove off. Whilst Mary went back inside the house and alerted other family members. About 4:00am later the same morning Mary's son Michael was coming from work when seeing the body of his sister lying along the road way. Upon seeing the body of his sister he went to the [Police Station] where he made a report. Upon the arrival of the police the body of the now deceased was seeing lying on its back in a pool of blood with appears to be a single gunshot wound to the forehead clad in a blue blouse and pink towel wrapped on the lower half of her body. The scene was processed. The following exhibits were retrieved from the scene: one 9mm spent casing and blood samples. The body of the now deceased was pronounced dead at the [Hospital] by [Doctor] at 9:25am. The body was then handed over to [Funeral Home] for storage pending post mortem. During this period enquiries were made for [John] and several phone calls made to his cell phone which prove futile. Information received is that [John] was found in his car suffering from gunshot wound to his head in the community of [Town] in the Parish of St. Mary by citizens. He was rushed to the [Hospital] where he received treatment and later succumbed to his injuries. He was pronounced dead by [Doctor] at 7:54am. | 4.826 | 0.934 |
| Suspect (John) went to [Mall] to pick up his son from his child's mother (Jane). An argument developed between them, during which the suspect pulled a knife from his waistband which he used to stab her to the abdomen and chest. Mary who is the sister of the now deceased held onto the suspect who used the said knife to inflict wounds to her right index and middle finger then used the same knife to cut his own throat. Ted who is a watchman on the mall along with Bob went to the assistance of Jane when the suspect used the said knife to inflict wounds to Ted's abdomen and chest and Bob to his chest. All four victims were taken to the [Hospital] where Jane and Bob were pronounced dead, while Ted and Mary were treated and released and suspect was transferred to the [Hospital] where he was admitted under police guard. | 4.826 | 0.934 |
| Victim and suspect were involved in an intimate relationship. A dispute developed between them during which suspect used a knife and inflict a stab wound below victim's left breast. She was taken to the [Hospital] where she was pronounced dead by the doctor on duty. The body was removed to the morgue for post-mortem. The accuse was positively identified on an identification parade on [Date]. | 4.825 | 0.931 |

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| On [Date], victim was reported missing by her boyfriend. On [Date 5 months later] victim was found in a shallow grave on [location]. During an interrogation, the boyfriend confessed to killing victim, then led police to her body. Post-mortem is to be conducted. Investigation continues. Accused was charged after he gave a confession statement to the police. | 4.822 | 0.923 |
| Victim and suspect who is her boyfriend had a dispute during which victim was stabbed in the neck. She was taken to the [Hospital] where she was pronounced dead by [Doctor]. The body was removed to the morgue for post-mortem. | 4.811 | 0.893 |
| Deceased and common law husband had a dispute about she having another relationship. He took her phone and an argument escalated and then John used a machete to inflict several chop wounds to the body of the deceased who ran from the house and fell. | 4.81 | 0.890 |
| The victim lived with her common law husband who is the suspect and her two children. The children left for school leaving both parties asleep, then about 10:30am the suspect communicated with two persons that he had killed his girlfriend. Residents later went to the house where they saw the victim lying on a bed in a pool of blood. The accuse man communicated with two persons via cellular phone and informed them that he had just killed his girlfriend. | 4.81 | 0.890 |
| The victim (John) and suspect (Jane) share a common law relationship and they shared a two year old child together. The suspect (Jane) also has a ten year old son with another man. The father of the 10 year old (Joe) went to visit his son at the home of the suspect (Jane) earlier in the day on Friday [Date]. After Joe left the victim John came to the house and an argument developed between him and the suspect (Jane) which resulted in a fight. The suspect (Jane) then used a knife to stab the victim to the centre of his chest which resulted in a wound which bled profusely. He was later rushed to the [Hospital] where he was pronounced dead by [Doctor]. | 4.806 | 0.879 |
| Both parties shared a common law union and lived together at [address]. They had an argument during which Jane used a knife to stab John in his back causing a wound which bled. John was rushed to the [Hospital] where he was pronounced dead. On [Date] accused was on warrant. | 4.8 | 0.863 |

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| John and Jane who shared a common law relationship had a dispute during which John used a piece of board to hit Jane to the head. John then took the children next door before setting the house a blaze with Jane's body inside. John has been on the run since. The incident was first recorded as a death investigation on the [Date] but following a post mortem examination on the [Date] it was stated that death was as a result of blunt force trauma to the head. John was arrested by the police on the [Date] at [location]. On the [Date] John gave a caution statement to the police confessing to killing Jane during a domestic dispute; hence he was formally charged after a caution statement. | 4.8 | 0.863 |
| The victim was stabbed to death by her male companion at the mentioned location. The victim was involved in a dispute with John when a knife was used to stab the victim in the chest. She died whilst undergoing treatment at the [Hospital]. | 4.8 | 0.863 |
| Reports are Jane had gone next door to her sister's house, Mary, whilst she was there John came by and an argument developed between them during which he pulled a firearm and fired several shots hitting her [fatal]. | 4.789 | 0.833 |
| Constable John who is attached at the [Police Station] met victim who is his girlfriend at the [Recreation Area]. An argument developed between them during which John pulled his service pistol and fired shots hitting victim in the head. He then fired two shots hitting himself in the head. Both were taken to the [Hospital] where victim was pronounced dead and John transferred to the [Hospital] where he is admitted in critical condition. | 4.778 | 0.803 |
| Victim and accused who are a couple had an argument after a female visited accused at his house. During the argument accused held victim on the floor, sat on her and pulled his licenced Glock pistol. She was heard screaming when accused fired shots hitting her on the left side of face. He then used the same gun and fired shots in his neck and forehead. The door was kicked open by accused co-workers from [Private Security Company]. They found accused lying on top of victim. They were taken to the [Hospital] where they were pronounced dead by [Doctor]. The bodies were removed to the morgue for post-mortem. | 4.773 | 0.790 |
| On Sunday [Date] about 04:00pm now deceased and his girlfriend Jane had a dispute when she used a knife to stab him in the left side of his neck and the left region of his groin. He was assisted to the [Hospital] where he died whilst undergoing treatment. He was pronounced dead at 6:53pm by [Doctor] at the [Hospital]. The scene and body were processed. Blood samples were taken from the scene. | 4.771 | 0.784 |

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| Victim who is an American citizen was reported missing to the police on Friday [Date] after she was last seen the day before. Later the same day after the missing report was made, victim was found floating close to the shore of the [Beach]. Post-mortem examination conducted on [Date] revealed that death was caused by blunt force trauma to the head and an incised wound to the throat. Victim's fiancé was arrested and charged with the murder on [Date]. | 4.767 | 0.773 |
| The now deceased and suspect lived together in a same sex relation overtime this relationship got sour where both parties accused each other of unfaithfulness. On [Date] the now deceased spent his birthday elsewhere and returned home the following morning. On returning, both parties got into a fight in the process accused drew a ratchet knife and stabbed the victim in the region of his left breast. He later collapsed and died on the spot. The scene was processed. The body was taken to [Hospital] where it was confirmed dead by [Doctor] at 2:40pm and later transferred to [Funeral Home] for storage pending post-mortem examination. | 4.766 | 0.771 |
| Accused who is the common-law-wife of the victim went to the house of the victim and saw him in a compromising position with another female. An argument developed and they both started to fight during which the accused used a knife to stabbed victim in the left breast. He was taken to the [Hospital] where he was pronounced dead. | 4.756 | 0.743 |
| Victim was talking to his girlfriend when an argument developed between the two, during which the girlfriend pulled a knife and used it to inflict wounds to the neck and upper chest of victim. Victim was rushed to the [Hospital] where he died whilst undergoing treatment. The body was removed to the morgue pending post-mortem. | 4.756 | 0.743 |
| Victim and accuse shared and intimate relationship and was having problems for sometime. Victim was seen by her father leaving for church and did not return home. Accuse house was searched where victim was seen lying on the floor in a pool of blood. | 4.754 | 0.738 |
| Effected when the complainant was at home when she was attacked by the accused who is her husband who resides with her and was shot several time in the neck, shoulder, hand and back with a CBC .22 rifle, It was reported to the police and he was subsequently arrested. | 4.744 | 0.711 |
| Victim and accuse who are a common-law couple had a dispute, during which suspect pulled a knife and inflicted multiple stab wounds to victims neck. Suspect was then held by citizens, beaten then handed over to the Police. Victim was taken to the [Hospital] where she died while undergoing treatment. The body was removed to the morgue for post-mortem. The accuse along with a blood stained knife was handed over to the police by citizens. The accuse was charged after a caution statement and a question & answer interview. | 4.744 | 0.711 |

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| Victim and suspect who shared a common-law relationship had a dispute during which suspect used a dinner fork to inflict a stab wound in victim's throat. He was taken to the [Hospital] where he died whilst undergoing treatment. The body was removed to the morgue for post-mortem. | 4.738 | 0.694 |
| Allegations are that the now deceased went to the home of the now suspect to confront her about an argument re- a sexual relationship between both of them while at the home of the suspect a dispute develop during which the suspect used a knife which she had in her possession to stab the now deceased in the left side of his chest which bled, he was taken to the [Hospital] by an ambulance where he died while undergoing treatment, he was pronounced dead by [Doctor] about 6:30pm [Date]. The scene was processed. | 4.737 | 0.692 |
| The now deceased went to girlfriend's house where he saw another male leaving the house. After which a heated argument developed and a tussle ensued, during which Jane stabbed John on his right thigh with a knife. She was chased and held by the deceased and she retaliated and stabbed him on the right collar. He was rushed to the hospital where he was pronounced dead by [Doctor]. His body was then taken to the [Funeral Home] for autopsy. The scene was processed. | 4.732 | 0.678 |
| Now deceased and the suspect shared a intimate relationship which had ended when complainant went to a nearby shop and was on her way home when suspect who was hiding behind a concrete structure unfinished building attacked her with a machete and chopped her several times all over her body to include her head, her hands, her legs, her back and her abdomen. She was rushed to the [Hospital] by the police where she underwent surgery and was admitted in stable condition. Complainant succumbed to her injuries on [Date] about 6pm. The scene was processed. | 4.731 | 0.675 |
| Facts briefly are that the complainant and accused was involved in a relation which ended when the complainant move out of the accused man house. The accused man then saw the complainant at a ninth night at [Beach] and insisted that she follow him to a dark section of the beach but she refused. The accused then threaten to stab the complainant so the complaint followed him out of fear for her life. The accused proceeded to cut the complainant hand bag from her hand and stated that if he found any condom in it, he is going to stab her. The accused then threw out the complainant thing out of her bag and found one condom. The accused man stabbed the complainant to her side causing her intestine to protrude. The complainant was assisted to [location] by the accused where she was subsequently transported to the [Hospital]. On Thursday [Date] the accused was pointed out to the police by the complainant hence he was arrested and charged. | 4.718 | 0.640 |

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| On Tuesday [Date] about 9:30pm the complainant and the accuse were at home when both got into an argument resulting in physical contact during which Jane was pushed by John who fell to the ground hitting her head rendering her unconscious. John then wrapped her into a towel and placed her on the back seat of his motor car and took her to a wooded area of [Location], he then set her body ablaze. He then went home. On Wednesday [Date] about 5:40pm Jane's body was discovered by citizens who summoned the police who visited and processed the scene and removed the burnt remains of Jane. John later that same day attended the [Police Station] where he made a missing person report. He subsequently gave the police a caution statement confessing to the killing of Jane and disposing of her body. His car has since been seized and submitted to the Government Forensic Institute for analysis. | 4.707 | 0.610 |
| Complainant was at her 6 apartment board house valued 1.7 million when the suspect who is her common law husband came with a jug of gasoline which he poured on her then set her ablaze causing severe burns to her body, the house was totally destroyed along with the contents. Accused escaped on foot and complainant was rushed to the [Hospital] by family members and admitted in serious but stable condition. | 4.706 | 0.607 |
| The accused who was involved in a relationship with the complainant, accused told her that he wanted to get back in a relationship with her, when his demands were not me he used a knife to stab the complainant five times, in her back, neck, left side of her face and side. The accused was handed over to the police by his sister. | 4.702 | 0.596 |
| Complainant and suspect who are a married couple had a dispute about the future of the marriage and sexual relationship, during which complainant told suspect that the marriage is over. Suspect then pulled a knife and used same to inflict stab wounds to complainant's neck and back. He was taken to the [Hospital] where he is admitted in stable condition. | 4.692 | 0.569 |
| The now deceased's common law wife visited him at the mentioned location during which an argument developed between both parties that turn physical in which the now deceased was stabbed in his chest, he fell to the ground and was rushed to the [Hospital] where he succumbed to his injury whilst being treated. He was pronounced dead by [Doctors] at 1:27pm. The scene was processed, a knife and two blood samples were taken for further processing. The body was identified by photograph by the victim brother. Accused was arrested and charged after Q and A Session. | 4.675 | 0.523 |
| Both the complainant and the accuse who live together had a dispute during which the accuse used a knife to stab the complainant several in the chest puncturing one of her lungs. She has been admitted to the [Hospital] in serious condition. | 4.667 | 0.501 |

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| Complainant went to her baby's father John who resides at [address] for money for their son two years of age, when an argument developed between them. John used a handgun to shoot her in her legs and buttocks. She was assisted to the [Hospital] by the police where she was treated and admitted in stable condition. The scene was processed. Blood sample was retrieved. | 4.667 | 0.501 |
| The deceased (John) and complainant (Jane) were involved in a relationship, they got into an heated argument, when the deceased (John) used a ratchet knife to inflict several wounds to her upper body causing serious injury. The deceased then tried to fled the area by jumping on a passing bus however he accidentally fell from the bus. Citizens attempted to accost him when the deceased used the said knife to stab himself in the chest area several times causing injury. Constable observed what happening intervened and retrieved the knife from the deceased during which he received a wound to his right hand. He (John) was assisted to [Hospital] where he was pronounced dead on arrival by [Doctor]. Both complainant (Jane and constable) seek medical attention. The female was admitted at [Hospital] in a serious condition. Victim body was removed to [Funeral Home] pending post mortem examination. | 4.667 | 0.501 |
| Complainant and suspect who are married had an argument in which suspect accused victim of being unfaithful. He then used a knife to inflict several stab wounds to complainant's back and chest. She was later assisted to the hospital where she was admitted. | 4.657 | 0.474 |
| Victim and accused who is his common-law wife had a dispute over infidelity. The dispute ensued into a fight, during which victim used a piece of stick to hit accused on the left arm. Accused then used a knife and inflict a stab wound to the right side of victim's chest. He was taken to the [Hospital] where he died while undergoing treatment. He was pronounced dead by [Doctor]. The body was removed to the morgue for post-mortem. | 4.656 | 0.471 |
| Both parties had an intimate relationship and were living together. On [Date] both parties had a domestic dispute during which the suspect used a machete to chop the complainant to the back of his head causing a wound which bled. He was rushed to the [Hospital] where he was admitted in critical condition. The scene was processed. Blood samples and a machete was taken from the scene. | 4.651 | 0.458 |
| Accuse went the home of the victim where they had sexual intercourse. A dispute developed after, during which the accuse strangled the victim then kicked her off the bed. Victim was found in her bedroom, lying on her back, unresponsive. She was rushed to the [Hospital]. | 4.647 | 0.447 |

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| Complainant was inside the kitchen talking on her cellular phone when her husband the accused came up to her and accused her of talking to a man. An argument developed during which the accused pulled his license firearm and fired two shots that hit the complainant in her face. The son of both complainant and accused came out of his room and was about to approach his father with the gun when he pointed same at him and fired a shot in his direction. The son however managed to disarm the gun from his father and then he took his mother to the hospital. The scene as well as both the accused and son were processed. | 4.644 | 0.439 |
| Complainant and suspect who is a common-law couple, had a dispute which resulted into a fight during which, suspect used a knife to inflict stab wounds to the right side of head causing serious injuries which bled profusely. He was taken to the [Hospital] then transferred to the [Hospital] where he is admitted in stable condition. Accused was charged after a question and answer session on the [Date]. | 4.611 | 0.349 |
| Based on information received during the ongoing investigation, and collaborated by the sister of the victim. It is alleged that victim was at home when the accused took a propane cylinder to the location, whilst there he pushed her from the bed and the fell to the floor, damaging her spinal cord, then he sexually assaulted her against her will, she was hospitalized the same day [Date] with severe neck injuries, she succumbed on [Date two days later]. Based on information received it is believed that the victim and the accused had a long standing relationship which became toxic. She moved out and lived at a previous address then moved to the address where the incident took place. | 4.6 | 0.319 |
| Control Log: Accused John who is a Sergeant attached to the JDF did not report for duty. As a result checks were made at his residence where victim who is the Principal for [School] and accused were found with gunshot wounds. | 4.595 | 0.305 |
| The complainant was on her way home when the accused man, who is her ex boyfriend asked her if he could spend the night with her. She refused and the accused pulled a knife and stabbed her three (3) times to her back and one (1) to her left shoulder causing wounds which bled. | 4.585 | 0.278 |
| The accused went to the complainant's house and asked her to accompany him somewhere, the complainant agreed and left with the accused in his grey Honda motor car. The accused took her to a secluded area where he handcuffed her. The accused then accused her of cheating, punched her in the face, poured gasoline on her and place tyres on her. The accused then lit her on fire however the complainant managed to free herself but received severe burns all over her body. | 4.581 | 0.267 |

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| The complainant and her child's father had a dispute at her home during which the suspect used a ratchet knife to inflict wound to her right hand. Complainant's sister, who is pregnant and was in another room went to her sister's assistance during which the accused inflicted stab wounds to her left forearm and left side. The accused then exited the house through the front door. Both sisters were rushed to the [Hospital] where complainant was treated and released and her sister treated but later transferred to the [Hospital] where she was admitted in a stable condition. The scene was processed. The accused was arrested on warrant. | 4.581 | 0.267 |
| Victim who is the accused ex-boyfriend went to her house and an argument developed between them. Victim kicked the accused to the ground and grabbed her around the neck then the accused used a knife to stab the victim in his neck and right arm. The victim was taken to the [Hospital] where he was later transferred to the [Hospital] where he succumbed to his injuries about 3:45pm on Saturday [Date]. | 4.563 | 0.218 |
| Accused and complainant had an argument over a child of whom both are parents of. Accused went to the complainant's house entered through a window and used a machete to inflict a wound to her head. | 4.553 | 0.191 |
| Victim (Jane) was at home with her 17 year old son and her one year old daughter when she was visited by the younger child's father (constable) John. An argument developed between Jane and John and it became physical and its reported that Jane threw some water on John who pulled his license firearm and fired one shot in the direction of Jane who was advancing towards him with an object in her hand. Jane received gunshot wound to the left side of her chest above the breast area and was assisted to the [Hospital] where she was pronounced dead on arrival by [Doctor] at 7:30pm. The scene was processed and four spent casing and one piece of clothing with blood stains were recovered from the scene. The body of the victim was seen lying on a stretcher at [Hospital] morgue clad in a cream jumper suit and was processed. Suspect later turned himself in at the [Police Station] where he handed over his license firearm with two magazine and forty 9mm cartridges. | 4.553 | 0.191 |
| Suspect who has been in a relationship with the complainant left the home of the complainant along with other family members of the complainant. Later in the day he returned to the complainant house without the knowledge of the complainant and locked away himself in a room upstairs. The complainant and her mother were in the living room having a conversation when they heard footsteps coming downstairs. The suspect who was armed with a knife started inflicting stabbed wounds to the body of the complainant. The mother ran outside and made an alarm. The police were alerted and on arrival they saw the complainant suffering from stab wounds and was assisted to the [Hospital] where she was treated and admitted in stable condition. The scene was processed, one blood sample and one foot of slipper. | 4.548 | 0.177 |

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| Complainant and suspect who is her baby father had a dispute and the suspect wanting to take their child away from its mother, suspect used a knife to stab her in the region of her spine causing a serious wound that bled. Complainant was admitted at the [Hospital] in serious condition. | 4.537 | 0.147 |
| Both parties were walking a long the roadway when they were attacked by the accused who is the complainant's husband but separated. The accused first attacked Jane who fell to the ground and the other complainant tried to help her and the accused chopped him on his right hand and in his face also chopping Jane on the right wrist causing wound that bled. Jane was taken to the [Hospital] where she was admitted. | 4.525 | 0.115 |
| Victim and suspect shared who shared a relationship had a dispute. He argued that victim gave him a STD during which he pulled a gun and fired shots hitting her on the upper section of her body. He was seen walking away from the house with a gun in his hand. | 4.523 | 0.109 |
| Both complainants (Joe and Jane) shared an intimate relationship and was lying in bed when the accused (John) who is a past lover of Jane kicked open a side door and opened gunfire at the couple, then escaped on foot in the area. Joe was hit in the left shoulder, left index finger, left elbow, left side of chest and left knee. Jane was hit in the left arm. Both persons were admitted to the [Hospital]. The scene was processed, two (2) expended bullets and blood samples were retrieved from the scene. Accused was charged following investigations and an interview with his lawyer. | 4.514 | 0.085 |
| Complainant and suspect was at home when a domestic dispute developed between both. The suspect who is complainant wife use a machete to chop complainant to the left section of his head and his left shoulder causing a wound which bled. | 4.514 | 0.085 |
| The accused who is the complainant's boyfriend went to visit her and an argument developed, during which accused took up a stone which he used to hit her multiple times in her head and face causing a large wound to the left side of her head and her eyelids to be swollen. | 4.513 | 0.082 |
| Effected when the accused (John) who is the complainant's baby father went to deliver groceries for his daughter. The complainant (Jane) was then attacked by the accused who was armed with a kitchen knife by stabbing her all over her body. The complainant (Jane) then made an alarm and her new boyfriend (Joe) who was visiting her was also attacked where he too was stabbed all over his body. The accused (John) was later pointed out to the police. | 4.509 | 0.071 |
| Accused and complainant who share a common-law relationship were at home when an argument developed about complainant's infidelity. Accused used a machete to inflict chop wounds to complainant's head and left arm causing serious injuries. She was admitted in hospital for treatment. | 4.5 | 0.047 |

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| Complainant was at home with his common law wife who was in the kitchen boiling water. He went to turn off the stove and the suspect threw the pot of water on his back. He turn around and she threw the remaining water on his body causing injury to his chest and face. | 4.5 | 0.047 |
| Accused and complainant shared a common law relationship and have been having several domestic disputes. On the date in question the complainant arrived home from the market when the accused attacked her with a machete and inflict chop wounds. | 4.492 | 0.025 |
| Accused and his common law wife Jane had a dispute when he attacked her with a machete chopping her several places on her body. Michelle and Monica intervened and both were also chopped and injured. Monica received injuries on the top of her head and Michelle in her back. They were taken to the [Hospital] where Jane and Monica were treated and released and Michelle was admitted with a crack skull. | 4.488 | 0.014 |
| Whilst the complainant was inside of her kitchen cooking, her husband John entered the kitchen and an argument developed between them. The accused then took up a machete from behind a gas stove, he then used it to chop the complainant. | 4.478 | -0.013 |
| Both accused and complainant are involved in a common-law relationship and are living together. On the night in question both were at their home when an argument developed and the accused man went into the kitchen and retrieved a machete which he used to chop the complainant. | 4.467 | -0.043 |
| Allegations are that now deceased and complainant who shared a common law relationship was involved in an argument when now deceased used a knife to inflict a wound to the throat of Jane, who managed to escaped by jumping through a window and ran. | 4.446 | -0.100 |
| The complainant was walking with her eight (8) year old son Timmy, when a light blue Toyota Corolla motor car registered driven by a retired Special Sergeant and farmer drove up and stopped and John came out of the car and held onto the complainant's and started pulling her towards the motor car. A struggle developed between both parties and John pulled his license firearm from his waistband and fired one shot hitting complainant to the right side of her head. The suspect went back into the car and drove away and the complainant was assisted to the [Hospital] where she was treated and admitted in a serious but stable condition. The suspect's licensed Taurus .38 Revolver serial number HH63432 was seized by the police with one spent casing and eleven live .38 cartridges. John was taken into custody for questioning. The scene and vehicle was processed by [Detective] and team of the [Police Station] as also the hands of John was swabbed by [Constable] and the firearm and ammunitions were placed into separate envelopes and sealed for ballistic testing. | 4.444 | -0.106 |

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| Effected when complainant was at a friend's house which she is the caretaker for, when accused came to the house and demanded sex from the complainant who is his wife and a dispute developed and accused used a knife to slash complainant throat causing a wound that bled. | 4.439 | -0.119 |
| Accused and complainant shared a common law relationship, when both had a dispute earlier in the day. Whilst the complainant was asleep the accused used a knife to stab the complainant in the chest causing a wound that bled. She was taken to [Hospital] where she was admitted. | 4.438 | -0.122 |
| Complainant was at the home of the accused with whom he share an intimate relationship, when he took his loaded Browning service pistol loaded with fourteen (14) 9mm rounds from his pants waist, cleared the weapon and placed it under his pillow. The accused then picked up the weapon, loaded a round in the chamber and shot the complainant in his chest. He was taken to the [Hospital] where he was admitted in serious condition. The accused was charged after a question and answer interview in the presence of her attorney. | 4.435 | -0.130 |
| Complainant and suspect who are involved in a common-law union was involved in a domestic dispute. During the dispute suspect brandished his license glock 9mm pistol and allegedly used same to hit complainant on the right side of her face and discharged two (2) rounds over the head of Jane. Two (2) spent casings was also recovered from the scene. | 4.429 | -0.146 |
| After a relationship ended between accused and complainant, on the [Date] the accused used a machete to inflict wounds to complainant head and both arms which bled. On the [Date, 6 days later] the accused visited the home of the complainant where he used a knife to inflict wounds to complainant upper back and right arm causing her to be admitted at [Hospital]. | 4.421 | -0.168 |
| Both accused and complainant shared a sexual relationship. On [Date] both had an argument during which the accused went and set a pot with water on the stove. When the water boiled she threw it on the complainant causing severe burns to his face, neck and his upper body. | 4.409 | -0.201 |
| Complainant had a dispute with her common law husband/baby father during which time he pulled a firearm from his waist band and fired one (1) shot in the direction of the complainant who managed to escape injuries. He then used a piece of iron to hit the complainant in her back which caused bruises and swelling, She then handed over to the police a green looking colour lunch bag containing ten (10) 12- gauge cartridges. | 4.391 | -0.250 |
| Complainant who is the ex-girlfriend of suspect, had a dispute during which he pulled a gun and fired shots in her direction, hitting her on the left thigh. She was taken to the [Hospital] where she was treated and released. | 4.386 | -0.263 |

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| The accused and complainant were involved in a relationship. They were at the home of the complainant, when an argument developed, during which the suspect used a knife to inflict a wound to the complainant's chest. He was rushed to the [Hospital]. | 4.381 | -0.277 |
| Complainant and his girlfriend who is accused was at her house when an argument started between them. Accused then used a knife to stab complainant in his chest and left side of stomach. He is admitted at the [Hospital] in serious condition. Investigations continues. | 4.37 | -0.307 |
| Complainant was at home when suspect who is her common law husband come home and an argument develop when suspect used a knife to cut complainant neck causing wound which bled profusely. | 4.361 | -0.331 |
| During a domestic dispute the suspect who is the complainant's wife used a machete to inflict a wound to the top of complainant's head that bled. Complainant received eleven stitches at the [Hospital]. | 4.358 | -0.340 |
| Complainant and suspect who is complainant's boyfriend, had a dispute during which suspect used a knife to inflict several stab wounds to her back, causing serious injuries. She is admitted in hospital for treatment. | 4.347 | -0.369 |
| Accused went to complainants house who is his ex common-law wife when he saw another man and an argument developed. The accused used a knife to cut the complainant to the left side of her throat causing a wound that bled profusely. Complainant was taken to the [Hospital] where she was treated and released. The accused was arrested after he was pointed out by the complainant. | 4.333 | -0.408 |
| Both accused and complainant are in a relationship with one child and were both in the [Market] when an argument develops between them during which accused used a scissors to stab complainant in the upper left side of his chest and his left arm. Complainant was rushed to the [Hospital] where he was admitted in stable condition. | 4.326 | -0.427 |
| Complainant and suspect who share a common law relationship had a long standing dispute, an argument developed between both parties whilst they were at a shop in the coal yard market the suspect used a knife to stab the complainant in his neck. He was rushed to the [Hospital] where he was admitted in serious condition. The scene was processed, blood samples and a kitchen knife was taken from the scene. | 4.303 | -0.489 |
| The complainant and the accused are involved in an intimate relationship and during a dispute between them the accused used a Guinness beer bottle to inflict damage to the left eye of the complainant resulting in the permanent loss of sight in that same eye. Accused was pointed out to the police by the complainant. | 4.297 | -0.506 |

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| Complainant had an argument with the accused who is his common law spouse. After the argument ended, complainant went away and fell asleep under an almond tree when the accused approached him and threw a container of hot water on him causing severe burn marks to his chest, right hand and chin. On [Date] the accused was pointed out to the police by the complainant at [Beach], hence her arrest. | 4.295 | -0.511 |
| Accused entered the house of the complainant while she sleep in bed dressed only in panties where he demanded sex. When his demand was not met he tried forcing himself on her, she resisted him. Accused then held her down on the bed and began to hit her all over her body while trying to open her legs. Complainant continued to resist and he used a screw driver to stab her underneath her foot bottom causing a wound which bled. Complainant managed to escape, accused who is her former boyfriend and made a report to the police. She was assisted to [Hospital] where she was treated and released. Accused was later pointed out to the police by the complainant. | 4.289 | -0.527 |
| Complainant was at suspect's house and packed her clothes to leave when suspect came home and saw her. He then went for a big piece of stick and started hitting her on her hands resulting in her left arm being broken. Suspect also had sexual intercourse with complainant against her will. | 4.278 | -0.557 |
| During a dispute between both parties who are husband and wife the accused used a container with hot water to throw onto complainant causing burns all over her body. | 4.26 | -0.606 |
| Complainant received a call from a private number to meet a friend name [Joe] at [Motel] when she got there and went to room 13 she saw her husband [John] they had sex after which an argument developed when he used a board a knife to stab her above her breast causing a wound. | 4.255 | -0.620 |
| Complainant and accused who are a couple, had a dispute during which accused took up a pot of hot water and threw it on complainant. He sustained burns to his abdomen and right side of his body. He is admitted in hospital for treatment. | 4.243 | -0.652 |
| Both accused and her baby father who is the complainant, were in complainants yard talking, when accused told complainant to wait, she went inside and boiled some water which she threw on the complainant causing severe burns to his neck, back and other parts of his body. | 4.225 | -0.701 |
| From information received the decease lived in a one bedroom house with her common law husband John. It is alleged that both parties argued and fight regularly. The victim was last seen on [Date]. | 4.219 | -0.718 |

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| Complainant and her common law husband had an argument during which accuse grabbed complainant and throw her in a concrete column causing complainant to hit her head and she became unconscious. When she awoke she realized that one of her upper tooth was missing, her mouth was bleeding and she had wounds to her shoulder which bled. | 4.216 | -0.726 |
| The complainant enquired of the accused who is his girlfriend, if she had HIV. As a result of this an argument developed during which time accused used a knife to inflict wounds to the complainant's head, right hand left leg and abdomen which bled. The now accused then went out on the main road armed with the knife and was apprehended by the [Police] the complainant was rushed to the [Hospital] then transferred to the [Hospital] where he underwent surgery. | 4.205 | -0.756 |
| Both parties are involved in a common law relationship. They had a dispute which result in the suspect using a piece of board to hit the complainant several times in her head causing a wound which bled profusely. The complainant was later transported to the [Hospital] where she was admitted. | 4.204 | -0.759 |
| The accused and the complainant shared an intimate relationship. During a dispute the accused used a rum bottle to hit the complainant to her head causing a wound to her head which bled profusely. The accused was arrested on warrant on information. | 4.204 | -0.759 |
| Complainant and female Accused who shared a common-law relationship had a violent domestic (D/V) dispute. During the dispute the accused woman used a knife to inflict a wound to the complainants abdomen causing a wound which bled profusely. The complainant became unconscious and was later transported to the [Hospital] for treatment. Accused was subsequently arrested. | 4.195 | -0.783 |
| Complainant went to her ex-boyfriend's house to collect her clothes when she was attacked by him who used a piece of broad to beat her and broke her left hand. | 4.195 | -0.783 |
| Complainant was on the road with friends when an argument developed between she and her ex-boyfriend. Her ex-boyfriend then used a ratchet knife to cut her in her face causing a wound which bled. Complainant manage to escape and went home. | 4.182 | -0.818 |
| The accuse and the complainant who is his baby mother had a dispute over a domestic matter, when he used a big tool to hit the complainant to the forehead causing a wound which bled and on her left hand fracturing same. She was taken to the [Hospital] where she was treated. The complainant's statement was recorded on Tuesday [Date] and the accuse was subsequently charged. | 4.180 | -0.851 |

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| Complainant and accused are involved in an intimate relationship, they were involved in an argument which resulted into a fight during which the accused used hot water to burn the complainant all over her left hand causing sore and pain. | 4.154 | -0.895 |
| During a domestic dispute at complainants house, the suspect who is his baby mother used a knife to stab him to the left side of his chest causing a very serious wound that bled. She also used the knife to cut up his living room sofas. Complainant was assisted to the [Hospital] where he was admitted in stable condition. | 4.140 | -0.933 |
| Complainant and suspect who share a common law relationship had a dispute during which suspect used a piece of wire to hit complainant over her back causing her to feel pain. Complainant took up a knife and suspect went outside and took up his fish gun and shot at complainant, she held up her left arm as to block off the spear which caught her in the left arm. She was taken to the [Hospital] where she is admitted. | 4.119 | -0.990 |
| John and Jane who share a five month old child, had a domestic dispute which became physical whereby John used an empty red stripe bottle to hit her on the head and upper body causing a wound above her left eye which bled and fractured her finger. | 4.090 | -1.069 |
| During a dispute between both parties the accuse man who is a license firearm holder and the complainant's baby father pulled his firearm and discharged a single shot in the direction of the complainant. She was not injured however the accuse man threatened to kill her as it was reported. | 4.083 | -1.088 |
| Complainant was at work at the [Place of Employment] when the child's mother visited him. An argument developed during which she used a knife to inflict stab wounds on complainant's right shoulder, causing wounds which bled profusely. He was treated at the [Hospital]. | 4.070 | -1.123 |
| Complainant was at home with the accused who is her common law husband when an argument developed between them. The accused used an object to hit the complainant on her forehead causing blood to come from her nose and causing her to be dizzy and unresponsive. | 4.035 | -1.218 |
| Both complainants who are in a relationship were at home when they heard strange sounds. The female complainant locked the front door and ran into a bedroom when the suspect who is her ex-boyfriend and father of her child forced open a window to the bedroom and fired one shot inside. The male complainant ran through the back door after which 2 loud explosions sounding like gunshots were heard in the direction he ran. Suspect then pointed the gun at the female complainant, robbed her of property and used the gun to hit her twice in the back and also slapped her several times in the face with his hand. Complainant was not injured. | 4.028 | -1.237 |

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| Complainant and accused share a common law relationship. They had a dispute resulting in the accused using his hand to punch complainant in the eye almost causing her to be blind. A report was made to the police and the accused arrested and charged. | 4.024 | -1.248 |
| During a dispute between both complainant and accused who is her baby father. The accused used a piece of broken bottle to stab complainant on her upper arm, complainant was taken to the [Hospital] where she was admitted in stable condition. Accused was later arrested. | 4.024 | -1.248 |
| After the relationship ended, complainant and accused had a fight during which a scissors was used to stab the complainant on the right arm, causing a wound which bled. | 4.000 | -1.314 |
| Complainant went to the home of the accused who is he child's father for money, when an argument developed which turn physical. Accused bit complainant to her left hand and palm causing wounds to her left ear, causing a piece to fall to the ground. | 4.000 | -1.314 |
| The complainant went to visit his children at his babymother with groceries items and a dispute developed and accused used a knife to stab complainant and complainant held on to the blade of the knife which cut him between the thumb and index finger which bled and bruises and swelling from bites from accused. | 4.000 | -1.314 |
| The complainant and her common law husband, the accused, were having a dispute during which the accused used a piece of board to hit the complainant on her left arm causing it to break. The police were summoned and the complainant pointed out the accused to the police. | 3.977 | -1.376 |
| Both the complainant and the suspect who are in a common law relationship had a dispute that escalated into a fight during which the suspect pulled a handgun from his waistband that he fired at complainant several times. However she managed to escaped unharmed. | 3.968 | -1.401 |
| Accused visited his baby mother Jane at her house argument developed between Jane and the accused when the accused threw a glass vase and hit Jane to the left foot causing it to be broken and other wounds. The complainant's brother Michael who was in another room heard the commotion, investigated and intervened. A struggle developed between Michael and the accused, during which Michael over powered the accused. The accused then left from inside the house, went to the gate where Michael’s motor car was parked, used a handgun to fire four shots, two damaging the widescreen and the left front fender of Michael's car before making his escape in the area with the firearm in his hand. | 3.938 | -1.482 |
| Complainant and suspect were involved in a relationship. During a fight suspect flung a stone which hit the complainant above her right eye causing a fracture and a wound which bled. | 3.841 | -1.746 |

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| During a dispute suspect who is the husband of the complainant used a blunt object to hit her on her right arm causing same to be broken. | 3.826 | -1.787 |
| During a dispute between complainant and accused who are husband and wife. Jane was accused of being unfaithful. Accused used a piece of board to hit complainant in the head causing a wound which bled. | 3.773 | -1.931 |
| Accused had been involved in a relationship with the complainant. The accuse went to [Shopping Mall] where he saw the complainant and he hit her in her face causing swellings to her left eye and two of her top teeth to broke off. | 3.763 | -1.958 |
| On mentioned date and time complainant went to satisfy her boyfriend while he was selling in front of the mentioned location. While staying there the complainant told the accused that she was going home because the event was finished. An argument then develop between the two. The accused used a stone to hit the complainant on the left elbow causing it break. | 3.758 | -1.972 |
| Complainant surprised her boyfriend at his home, and caught him with another woman in bed, both naked. Complainant became upset and attempted to hit the other woman when the boyfriend beat her up. He punched her in her face causing swelling and breaking out some of her teeth. | 3.750 | -1.994 |
| Complainant and accused was in a common law relationship and the date accused visited the complainant housed when they had a dispute developed, during which the punched her in her face causing swelling and bruises to her cheek. | 3.694 | -2.146 |
| Facts are accused came home and saw his daughter with a camera taking pictures of her mother who was naked at the time an argument develop between accused and complainant when accused used a broom to hit complainant on the left hand causing it to brake. | 3.694 | -2.146 |
| Complainant (Jane) was at her shop at [Location] when her ex boyfriend John of [Town] drove up in a black CRV and argument developed when it is alleged that John pulled out a firearm and fired one shot in the air. Jane who was in fear of her life ran around the corner of the shop an jumped in the river in a bid to escape when John fired two more shots and drove away with her car a Toyota verossa with $185,000jmd on board and a Samsung galaxy cell phone valued at $50,000jmd. Jane was later taken to the hospital for treatment. | 3.690 | -2.157 |
| During an argument between the complainant and the accused over monies for their daughter. Accuse man reportedly pushed the complainant to the ground causing her to hit the lower section of her right hand which resulted in swelling and also pain. Complainant was advised to seek medical attention at the [Hospital] where she was informed that her said right hand was broken and a cast was placed on it. | 3.639 | -2.296 |

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| Complainant went to visit his children, during which an argument developed which turned into a fight. Accused then held on to complainant's finger and pull it backwards until it was broken. | 3.628 | -2.326 |
| Complainant who is the baby mother of the suspect had an argument with him on the [Date] in which she was physically assaulted by him. On the [Date 5 days later] she was walking along the mentioned road way when he approached her and an argument developed. | 3.625 | -2.334 |
| Allegation are that complainant was at her home when suspect who she shared an intimate relationship with came to her house and an argument developed. The accused then pushed the complainant which she fell to the floor and broke her leg. | 3.342* | -3.104 |
| NA = Not applicable. Case was not included in IPV Survey due to limited information about the actual IPV incident in the police report narrative.<br>*Outlier. | | |

# APPENDIX D: BACKWARD ELIMINATION FOR LOGISTIC REGRESSIONS OF IPV MURDER

Table 45: Regression Coefficients from Stepwise Elimination Method for Logistic Regression of IPV Murder against the Predictors

| Variables in the Equation | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Odds | 95% C.I. for Odds Ratio | |
| | | β | S.E. | Wald | df | p | Ratio | Lower | Upper |
| Step 1[a] | Estrangement | -.965 | .460 | 4.393 | 1 | .036 | .381 | .154 | .939 |
| | Gun | 1.483 | .627 | 5.588 | 1 | .018 | 4.406 | 1.288 | 15.067 |
| | Sharp | 1.903 | .528 | 12.993 | 1 | .000 | 6.705 | 2.383 | 18.869 |
| | Victim Employment | .552 | .424 | 1.694 | 1 | .193 | 1.736 | .756 | 3.984 |
| | Victim Sex | .234 | .443 | .280 | 1 | .597 | 1.264 | .531 | 3.011 |
| | Victim Age Under 30 | -.105 | .395 | .071 | 1 | .790 | .900 | .415 | 1.951 |
| | Marital Status | .508 | .688 | .544 | 1 | .461 | 1.661 | .431 | 6.404 |
| | Cohabitation | -.874 | .721 | 1.468 | 1 | .226 | .417 | .102 | 1.716 |
| | Infidelity | .514 | .475 | 1.172 | 1 | .279 | 1.673 | .659 | 4.245 |
| | Urbanization | -1.254 | .708 | 3.139 | 1 | .076 | .285 | .071 | 1.143 |
| | Home | .130 | .444 | .086 | 1 | .769 | 1.139 | .477 | 2.722 |
| | Home Hours | -.125 | .389 | .103 | 1 | .748 | .883 | .411 | 1.893 |
| | JCF Area | | | 5.535 | 4 | .237 | | | |
| | JCF Area I | 1.273 | .811 | 2.464 | 1 | .116 | 3.573 | .729 | 17.514 |
| | JCF Area II | 1.870 | .918 | 4.145 | 1 | .042 | 6.486 | 1.072 | 39.238 |
| | JCF Area III | 2.066 | .936 | 4.872 | 1 | .027 | 7.892 | 1.260 | 49.407 |
| | JCF Area V | 1.698 | .815 | 4.344 | 1 | .037 | 5.463 | 1.107 | 26.973 |
| | Constant | -2.380 | .939 | 6.425 | 1 | .011 | .093 | | |
| Step 2[a] | Estrangement | -.978 | .459 | 4.544 | 1 | .033 | .376 | .153 | .924 |
| | Gun | 1.478 | .626 | 5.568 | 1 | .018 | 4.382 | 1.284 | 14.953 |
| | Sharp | 1.915 | .526 | 13.253 | 1 | .000 | 6.788 | 2.421 | 19.035 |
| | Victim Employment | .559 | .423 | 1.748 | 1 | .186 | 1.749 | .763 | 4.008 |
| | Victim Sex | .219 | .439 | .249 | 1 | .618 | 1.245 | .527 | 2.940 |
| | Marital Status | .508 | .688 | .545 | 1 | .460 | 1.662 | .431 | 6.409 |
| | Cohabitation | -.843 | .712 | 1.405 | 1 | .236 | .430 | .107 | 1.735 |
| | Infidelity | .528 | .473 | 1.244 | 1 | .265 | 1.695 | .671 | 4.283 |
| | Urbanization | -1.238 | .706 | 3.076 | 1 | .079 | .290 | .073 | 1.157 |
| | Home | .135 | .444 | .093 | 1 | .760 | 1.145 | .480 | 2.734 |
| | Home Hours | -.136 | .387 | .124 | 1 | .725 | .873 | .409 | 1.862 |
| | JCF Area | | | 5.480 | 4 | .241 | | | |
| | JCF Area I | 1.256 | .809 | 2.412 | 1 | .120 | 3.511 | .720 | 17.129 |
| | JCF Area II | 1.832 | .907 | 4.081 | 1 | .043 | 6.248 | 1.056 | 36.962 |
| | JCF Area III | 2.038 | .930 | 4.800 | 1 | .028 | 7.675 | 1.240 | 47.523 |
| | JCF Area V | 1.659 | .801 | 4.284 | 1 | .038 | 5.253 | 1.092 | 25.269 |
| | Constant | -2.429 | .921 | 6.951 | 1 | .008 | .088 | | |

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| Step 3[a] | Estrangement | -1.005 | .451 | 4.959 | 1 | .026 | .366 | .151 | .887 |
| | Gun | 1.457 | .622 | 5.493 | 1 | .019 | 4.294 | 1.269 | 14.523 |
| | Sharp | 1.892 | .519 | 13.263 | 1 | .000 | 6.631 | 2.396 | 18.355 |
| | Victim Employment | .549 | .422 | 1.693 | 1 | .193 | 1.731 | .757 | 3.958 |
| | Victim Sex | .202 | .435 | .216 | 1 | .642 | 1.224 | .522 | 2.872 |
| | Marital Status | .478 | .679 | .495 | 1 | .482 | 1.612 | .426 | 6.106 |
| | Cohabitation | -.800 | .695 | 1.323 | 1 | .250 | .449 | .115 | 1.756 |
| | Infidelity | .531 | .472 | 1.264 | 1 | .261 | 1.701 | .674 | 4.292 |
| | Urbanization | -1.208 | .700 | 2.979 | 1 | .084 | .299 | .076 | 1.178 |
| | Home Hours | -.109 | .376 | .084 | 1 | .772 | .897 | .429 | 1.874 |
| | JCF Area | | | 5.428 | 4 | .246 | | | |
| | JCF Area I | 1.242 | .809 | 2.357 | 1 | .125 | 3.462 | .709 | 16.905 |
| | JCF Area II | 1.807 | .904 | 3.995 | 1 | .046 | 6.089 | 1.036 | 35.804 |
| | JCF Area III | 2.029 | .931 | 4.749 | 1 | .029 | 7.608 | 1.226 | 47.197 |
| | JCF Area V | 1.654 | .803 | 4.247 | 1 | .039 | 5.228 | 1.084 | 25.205 |
| | Constant | -2.320 | .847 | 7.500 | 1 | .006 | .098 | | |
| Step 4[a] | Estrangement | -1.005 | .451 | 4.971 | 1 | .026 | .366 | .151 | .885 |
| | Gun | 1.453 | .621 | 5.463 | 1 | .019 | 4.274 | 1.264 | 14.449 |
| | Sharp | 1.880 | .518 | 13.190 | 1 | .000 | 6.554 | 2.376 | 18.077 |
| | Victim Employment | .544 | .422 | 1.664 | 1 | .197 | 1.723 | .754 | 3.935 |
| | Victim Sex | .198 | .434 | .208 | 1 | .649 | 1.219 | .520 | 2.856 |
| | Marital Status | .469 | .677 | .479 | 1 | .489 | 1.598 | .424 | 6.024 |
| | Cohabitation | -.793 | .693 | 1.309 | 1 | .253 | .452 | .116 | 1.760 |
| | Infidelity | .518 | .470 | 1.214 | 1 | .270 | 1.679 | .668 | 4.217 |
| | Urbanization | -1.199 | .699 | 2.940 | 1 | .086 | .301 | .077 | 1.187 |
| | JCF Area | | | 5.536 | 4 | .237 | | | |
| | JCF Area I | 1.241 | .810 | 2.346 | 1 | .126 | 3.460 | .707 | 16.932 |
| | JCF Area II | 1.817 | .904 | 4.043 | 1 | .044 | 6.154 | 1.047 | 36.170 |
| | JCF Area III | 2.044 | .930 | 4.826 | 1 | .028 | 7.722 | 1.247 | 47.832 |
| | JCF Area V | 1.662 | .802 | 4.289 | 1 | .038 | 5.268 | 1.093 | 25.388 |
| | Constant | -2.385 | .818 | 8.493 | 1 | .004 | .092 | | |
| Step 5[a] | Estrangement | -.972 | .444 | 4.797 | 1 | .029 | .378 | .159 | .903 |
| | Gun | 1.478 | .618 | 5.719 | 1 | .017 | 4.384 | 1.306 | 14.719 |
| | Sharp | 1.856 | .513 | 13.065 | 1 | .000 | 6.398 | 2.339 | 17.503 |
| | Victim Employment | .493 | .406 | 1.474 | 1 | .225 | 1.637 | .739 | 3.628 |
| | Marital Status | .507 | .673 | .568 | 1 | .451 | 1.661 | .444 | 6.216 |
| | Cohabitation | -.813 | .693 | 1.378 | 1 | .240 | .443 | .114 | 1.724 |
| | Infidelity | .518 | .471 | 1.213 | 1 | .271 | 1.679 | .668 | 4.223 |
| | Urbanization | -1.161 | .691 | 2.822 | 1 | .093 | .313 | .081 | 1.214 |
| | JCF Area | | | 5.407 | 4 | .248 | | | |
| | JCF Area I | 1.180 | .797 | 2.195 | 1 | .138 | 3.256 | .683 | 15.521 |
| | JCF Area II | 1.753 | .891 | 3.875 | 1 | .049 | 5.773 | 1.008 | 33.080 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | JCF Area III | 1.998 | .922 | 4.697 | 1 | .030 | 7.371 | 1.211 | 44.878 |
| | JCF Area V | 1.615 | .794 | 4.137 | 1 | .042 | 5.026 | 1.061 | 23.821 |
| | Constant | -2.191 | .698 | 9.863 | 1 | .002 | .112 | | |
| Step 6[a] | Estrangement | -.937 | .440 | 4.533 | 1 | .033 | .392 | .165 | .928 |
| | Gun | 1.486 | .615 | 5.831 | 1 | .016 | 4.419 | 1.323 | 14.762 |
| | Sharp | 1.850 | .511 | 13.101 | 1 | .000 | 6.357 | 2.335 | 17.306 |
| | Victim Employment | .501 | .406 | 1.527 | 1 | .217 | 1.651 | .745 | 3.656 |
| | Cohabitation | -.375 | .372 | 1.014 | 1 | .314 | .687 | .331 | 1.426 |
| | Infidelity | .488 | .468 | 1.086 | 1 | .297 | 1.629 | .651 | 4.077 |
| | Urbanization | -1.071 | .681 | 2.474 | 1 | .116 | .343 | .090 | 1.302 |
| | JCF Area | | | 5.247 | 4 | .263 | | | |
| | JCF Area I | 1.139 | .795 | 2.052 | 1 | .152 | 3.123 | .658 | 14.827 |
| | JCF Area II | 1.716 | .889 | 3.728 | 1 | .054 | 5.563 | .974 | 31.765 |
| | JCF Area III | 1.937 | .917 | 4.461 | 1 | .035 | 6.936 | 1.150 | 41.842 |
| | JCF Area V | 1.604 | .794 | 4.079 | 1 | .043 | 4.972 | 1.048 | 23.579 |
| | Constant | -2.203 | .697 | 9.991 | 1 | .002 | .110 | | |
| Step 7[a] | Estrangement | -.788 | .413 | 3.640 | 1 | .056 | .455 | .202 | 1.022 |
| | Gun | 1.461 | .613 | 5.672 | 1 | .017 | 4.310 | 1.295 | 14.344 |
| | Sharp | 1.805 | .508 | 12.624 | 1 | .000 | 6.080 | 2.246 | 16.454 |
| | Victim Employment | .487 | .404 | 1.451 | 1 | .228 | 1.627 | .737 | 3.590 |
| | Infidelity | .461 | .465 | .981 | 1 | .322 | 1.585 | .637 | 3.942 |
| | Urbanization | -1.036 | .674 | 2.363 | 1 | .124 | .355 | .095 | 1.330 |
| | JCF Area | | | 5.045 | 4 | .283 | | | |
| | JCF Area I | 1.074 | .786 | 1.866 | 1 | .172 | 2.928 | .627 | 13.674 |
| | JCF Area II | 1.647 | .882 | 3.490 | 1 | .062 | 5.192 | .922 | 29.227 |
| | JCF Area III | 1.892 | .910 | 4.317 | 1 | .038 | 6.631 | 1.113 | 39.498 |
| | JCF Area V | 1.529 | .786 | 3.783 | 1 | .052 | 4.615 | .988 | 21.549 |
| | Constant | -2.356 | .685 | 11.822 | 1 | .001 | .095 | | |
| Step 8[a] | Estrangement | -.731 | .405 | 3.264 | 1 | .071 | .481 | .218 | 1.064 |
| | Gun | 1.532 | .610 | 6.298 | 1 | .012 | 4.626 | 1.399 | 15.300 |
| | Sharp | 1.829 | .507 | 13.013 | 1 | .000 | 6.226 | 2.305 | 16.818 |
| | Victim Employment | .473 | .401 | 1.392 | 1 | .238 | 1.605 | .732 | 3.519 |
| | Urbanization | -1.039 | .676 | 2.363 | 1 | .124 | .354 | .094 | 1.331 |
| | JCF Area | | | 5.138 | 4 | .273 | | | |
| | JCF Area I | 1.082 | .787 | 1.886 | 1 | .170 | 2.949 | .630 | 13.804 |
| | JCF Area II | 1.662 | .881 | 3.555 | 1 | .059 | 5.269 | .937 | 29.648 |
| | JCF Area III | 1.892 | .909 | 4.327 | 1 | .038 | 6.630 | 1.115 | 39.407 |
| | JCF Area V | 1.555 | .785 | 3.921 | 1 | .048 | 4.734 | 1.016 | 22.060 |
| | Constant | -2.318 | .680 | 11.625 | 1 | .001 | .098 | | |
| Step 9[a] | Estrangement | -.714 | .393 | 3.296 | 1 | .069 | .490 | .226 | 1.059 |
| | Gun | 1.293 | .577 | 5.019 | 1 | .025 | 3.644 | 1.176 | 11.296 |
| | Sharp | 1.632 | .480 | 11.571 | 1 | .001 | 5.114 | 1.997 | 13.096 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Victim Employment | .415 | .386 | 1.154 | 1 | .283 | 1.515 | .710 | 3.230 |
| | Urbanization | .097 | .389 | .062 | 1 | .803 | 1.102 | .514 | 2.363 |
| | Constant | -1.674 | .563 | 8.843 | 1 | .003 | .188 | | |
| Step 10[a] | Estrangement | -.702 | .390 | 3.242 | 1 | .072 | .496 | .231 | 1.064 |
| | Gun | 1.293 | .577 | 5.021 | 1 | .025 | 3.643 | 1.176 | 11.286 |
| | Sharp | 1.639 | .479 | 11.702 | 1 | .001 | 5.149 | 2.013 | 13.166 |
| | Victim Employment | .413 | .386 | 1.146 | 1 | .284 | 1.512 | .709 | 3.222 |
| | Constant | -1.609 | .497 | 10.474 | 1 | .001 | .200 | | |
| Step 11[a] | Estrangement | -.698 | .388 | 3.246 | 1 | .072 | .498 | .233 | 1.063 |
| | Gun | 1.371 | .571 | 5.768 | 1 | .016 | 3.941 | 1.287 | 12.066 |
| | Sharp | 1.672 | .476 | 12.307 | 1 | .000 | 5.320 | 2.091 | 13.537 |
| | Constant | -1.346 | .424 | 10.056 | 1 | .002 | .260 | | |
| Step 12[a] | Gun | 1.312 | .565 | 5.384 | 1 | .020 | 3.714 | 1.226 | 11.252 |
| | Sharp | 1.563 | .468 | 11.137 | 1 | .001 | 4.773 | 1.906 | 11.951 |
| | Constant | -1.455 | .420 | 12.020 | 1 | .001 | .233 | | |

a. Variable(s) entered on step 1: Estrangement, Gun, Sharp, Victim Employment, Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Infidelity, Urbanization, Home, Home Hours, and JCF Area.

Table 46: Regression Coefficients from Stepwise Elimination Method for Logistic Regression of IPV Murder against the Predictor Variables

| Variables in the Equation | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 95% C.I. for Odds Ratio | |
| | | β | S.E. | Wald | df | p | Odds Ratio | Lower | Upper |
| Step 1[a] | Estrangement | -.916 | .458 | 3.997 | 1 | .046 | .400 | .163 | .982 |
| | Gun | 1.491 | .627 | 5.648 | 1 | .017 | 4.440 | 1.299 | 15.180 |
| | Sharp | 1.915 | .529 | 13.094 | 1 | .000 | 6.787 | 2.405 | 19.148 |
| | Victim Sex | .229 | .445 | .265 | 1 | .607 | 1.257 | .526 | 3.007 |
| | Victim Age Under 30 | -.053 | .401 | .018 | 1 | .894 | .948 | .432 | 2.079 |
| | Marital Status | .536 | .685 | .613 | 1 | .434 | 1.710 | .447 | 6.548 |
| | Cohabitation | -.890 | .719 | 1.533 | 1 | .216 | .411 | .100 | 1.680 |
| | Infidelity | .517 | .475 | 1.184 | 1 | .276 | 1.677 | .661 | 4.256 |
| | Urbanization | -1.251 | .707 | 3.126 | 1 | .077 | .286 | .072 | 1.145 |
| | Home | .132 | .446 | .088 | 1 | .767 | 1.141 | .476 | 2.737 |
| | Home Hours | -.106 | .388 | .075 | 1 | .784 | .899 | .420 | 1.925 |
| | JCF Area | | | 5.719 | 4 | .221 | | | |
| | JCF Area I | 1.205 | .803 | 2.255 | 1 | .133 | 3.337 | .692 | 16.087 |
| | JCF Area II | 1.831 | .915 | 4.007 | 1 | .045 | 6.238 | 1.039 | 37.455 |
| | JCF Area III | 2.109 | .945 | 4.983 | 1 | .026 | 8.238 | 1.293 | 52.472 |
| | JCF Area V | 1.696 | .815 | 4.327 | 1 | .038 | 5.451 | 1.103 | 26.943 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Victim Income Status | .488 | .423 | 1.332 | 1 | .248 | 1.629 | .711 | 3.732 |
| | Constant | -2.370 | .966 | 6.022 | 1 | .014 | .094 | | |
| Step 2[a] | Estrangement | -.922 | .457 | 4.077 | 1 | .043 | .398 | .163 | .973 |
| | Gun | 1.487 | .626 | 5.637 | 1 | .018 | 4.423 | 1.296 | 15.093 |
| | Sharp | 1.921 | .527 | 13.274 | 1 | .000 | 6.829 | 2.430 | 19.197 |
| | Victim Sex | .223 | .442 | .255 | 1 | .614 | 1.250 | .525 | 2.976 |
| | Marital Status | .537 | .685 | .614 | 1 | .433 | 1.711 | .447 | 6.549 |
| | Cohabitation | -.875 | .709 | 1.521 | 1 | .218 | .417 | .104 | 1.675 |
| | Infidelity | .524 | .472 | 1.229 | 1 | .268 | 1.689 | .669 | 4.263 |
| | Urbanization | -1.244 | .706 | 3.105 | 1 | .078 | .288 | .072 | 1.150 |
| | Home | .135 | .446 | .092 | 1 | .761 | 1.145 | .478 | 2.743 |
| | Home Hours | -.112 | .386 | .084 | 1 | .772 | .894 | .420 | 1.906 |
| | JCF Area | | | 5.744 | 4 | .219 | | | |
| | JCF Area I | 1.198 | .801 | 2.236 | 1 | .135 | 3.313 | .689 | 15.926 |
| | JCF Area II | 1.814 | .906 | 4.012 | 1 | .045 | 6.134 | 1.040 | 36.187 |
| | JCF Area III | 2.098 | .941 | 4.967 | 1 | .026 | 8.150 | 1.288 | 51.578 |
| | JCF Area V | 1.678 | .804 | 4.351 | 1 | .037 | 5.355 | 1.107 | 25.912 |
| | Victim Income Status | .499 | .416 | 1.439 | 1 | .230 | 1.646 | .729 | 3.719 |
| | Constant | -2.402 | .935 | 6.593 | 1 | .010 | .091 | | |
| Step 3[a] | Estrangement | -.929 | .456 | 4.152 | 1 | .042 | .395 | .162 | .965 |
| | Gun | 1.477 | .625 | 5.582 | 1 | .018 | 4.378 | 1.286 | 14.905 |
| | Sharp | 1.904 | .524 | 13.228 | 1 | .000 | 6.714 | 2.406 | 18.735 |
| | Victim Sex | .217 | .442 | .242 | 1 | .623 | 1.243 | .523 | 2.954 |
| | Marital Status | .520 | .680 | .584 | 1 | .445 | 1.682 | .443 | 6.381 |
| | Cohabitation | -.858 | .705 | 1.482 | 1 | .223 | .424 | .106 | 1.688 |
| | Infidelity | .512 | .470 | 1.185 | 1 | .276 | 1.669 | .664 | 4.195 |
| | Urbanization | -1.230 | .705 | 3.045 | 1 | .081 | .292 | .073 | 1.163 |
| | Home | .105 | .434 | .059 | 1 | .808 | 1.111 | .475 | 2.600 |
| | JCF Area | | | 5.839 | 4 | .211 | | | |
| | JCF Area I | 1.195 | .802 | 2.218 | 1 | .136 | 3.303 | .685 | 15.918 |
| | JCF Area II | 1.819 | .906 | 4.030 | 1 | .045 | 6.165 | 1.044 | 36.405 |
| | JCF Area III | 2.110 | .941 | 5.026 | 1 | .025 | 8.247 | 1.304 | 52.167 |
| | JCF Area V | 1.685 | .805 | 4.386 | 1 | .036 | 5.393 | 1.114 | 26.106 |
| | Victim Income Status | .497 | .416 | 1.429 | 1 | .232 | 1.644 | .728 | 3.712 |
| | Constant | -2.446 | .924 | 7.000 | 1 | .008 | .087 | | |
| Step 4[a] | Estrangement | -.950 | .448 | 4.494 | 1 | .034 | .387 | .161 | .931 |
| | Gun | 1.461 | .621 | 5.533 | 1 | .019 | 4.310 | 1.276 | 14.561 |
| | Sharp | 1.887 | .518 | 13.261 | 1 | .000 | 6.602 | 2.391 | 18.232 |
| | Victim Sex | .204 | .438 | .217 | 1 | .641 | 1.227 | .519 | 2.896 |
| | Marital Status | .498 | .674 | .547 | 1 | .460 | 1.646 | .439 | 6.164 |
| | Cohabitation | -.825 | .691 | 1.425 | 1 | .233 | .438 | .113 | 1.699 |
| | Infidelity | .517 | .470 | 1.214 | 1 | .271 | 1.678 | .668 | 4.212 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Urbanization | -1.207 | .699 | 2.981 | 1 | .084 | .299 | .076 | 1.177 |
| | JCF Area | | | 5.785 | 4 | .216 | | | |
| | JCF Area I | 1.183 | .802 | 2.178 | 1 | .140 | 3.265 | .678 | 15.716 |
| | JCF Area II | 1.795 | .901 | 3.970 | 1 | .046 | 6.018 | 1.030 | 35.179 |
| | JCF Area III | 2.097 | .940 | 4.972 | 1 | .026 | 8.141 | 1.289 | 51.424 |
| | JCF Area V | 1.678 | .805 | 4.346 | 1 | .037 | 5.355 | 1.106 | 25.932 |
| | Victim Income Status | .488 | .414 | 1.389 | 1 | .238 | 1.629 | .724 | 3.664 |
| | Constant | -2.343 | .821 | 8.148 | 1 | .004 | .096 | | |
| Step 5[a] | Estrangement | -.921 | .443 | 4.328 | 1 | .037 | .398 | .167 | .948 |
| | Gun | 1.488 | .617 | 5.804 | 1 | .016 | 4.427 | 1.320 | 14.848 |
| | Sharp | 1.862 | .514 | 13.139 | 1 | .000 | 6.434 | 2.351 | 17.607 |
| | Marital Status | .535 | .671 | .636 | 1 | .425 | 1.708 | .458 | 6.364 |
| | Cohabitation | -.842 | .692 | 1.481 | 1 | .224 | .431 | .111 | 1.672 |
| | Infidelity | .517 | .470 | 1.210 | 1 | .271 | 1.677 | .667 | 4.216 |
| | Urbanization | -1.165 | .690 | 2.850 | 1 | .091 | .312 | .081 | 1.206 |
| | JCF Area | | | 5.638 | 4 | .228 | | | |
| | JCF Area I | 1.124 | .789 | 2.029 | 1 | .154 | 3.078 | .655 | 14.457 |
| | JCF Area II | 1.729 | .888 | 3.795 | 1 | .051 | 5.637 | .989 | 32.111 |
| | JCF Area III | 2.039 | .929 | 4.823 | 1 | .028 | 7.684 | 1.245 | 47.421 |
| | JCF Area V | 1.626 | .795 | 4.181 | 1 | .041 | 5.083 | 1.070 | 24.155 |
| | Victim Income Status | .430 | .394 | 1.188 | 1 | .276 | 1.537 | .709 | 3.330 |
| | Constant | -2.140 | .693 | 9.524 | 1 | .002 | .118 | | |
| Step 6[a] | Estrangement | -.884 | .439 | 4.051 | 1 | .044 | .413 | .175 | .977 |
| | Gun | 1.498 | .615 | 5.943 | 1 | .015 | 4.474 | 1.341 | 14.921 |
| | Sharp | 1.856 | .511 | 13.192 | 1 | .000 | 6.396 | 2.350 | 17.412 |
| | Cohabitation | -.379 | .373 | 1.035 | 1 | .309 | .684 | .329 | 1.421 |
| | Infidelity | .484 | .468 | 1.072 | 1 | .300 | 1.623 | .649 | 4.058 |
| | Urbanization | -1.069 | .680 | 2.473 | 1 | .116 | .343 | .091 | 1.301 |
| | JCF Area | | | 5.465 | 4 | .243 | | | |
| | JCF Area I | 1.077 | .786 | 1.874 | 1 | .171 | 2.934 | .628 | 13.706 |
| | JCF Area II | 1.688 | .885 | 3.633 | 1 | .057 | 5.406 | .953 | 30.662 |
| | JCF Area III | 1.972 | .924 | 4.559 | 1 | .033 | 7.184 | 1.176 | 43.905 |
| | JCF Area V | 1.613 | .796 | 4.108 | 1 | .043 | 5.016 | 1.055 | 23.857 |
| | Victim Income Status | .427 | .394 | 1.174 | 1 | .279 | 1.532 | .708 | 3.314 |
| | Constant | -2.144 | .692 | 9.589 | 1 | .002 | .117 | | |
| Step 7[a] | Estrangement | -.734 | .412 | 3.172 | 1 | .075 | .480 | .214 | 1.077 |
| | Gun | 1.475 | .613 | 5.799 | 1 | .016 | 4.372 | 1.316 | 14.523 |
| | Sharp | 1.811 | .508 | 12.709 | 1 | .000 | 6.117 | 2.260 | 16.557 |
| | Infidelity | .457 | .465 | .969 | 1 | .325 | 1.580 | .635 | 3.929 |
| | Urbanization | -1.033 | .673 | 2.354 | 1 | .125 | .356 | .095 | 1.332 |
| | JCF Area | | | 5.252 | 4 | .262 | | | |
| | JCF Area I | 1.013 | .778 | 1.693 | 1 | .193 | 2.753 | .599 | 12.659 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | JCF Area II | 1.618 | .879 | 3.392 | 1 | .066 | 5.043 | .901 | 28.214 |
| | JCF Area III | 1.922 | .916 | 4.399 | 1 | .036 | 6.837 | 1.134 | 41.204 |
| | JCF Area V | 1.536 | .788 | 3.800 | 1 | .051 | 4.648 | .992 | 21.786 |
| | Victim Income Status | .407 | .392 | 1.077 | 1 | .299 | 1.502 | .697 | 3.236 |
| | Constant | -2.296 | .682 | 11.351 | 1 | .001 | .101 | | |
| Step 8[a] | Estrangement | -.679 | .404 | 2.824 | 1 | .093 | .507 | .230 | 1.120 |
| | Gun | 1.546 | .609 | 6.433 | 1 | .011 | 4.691 | 1.421 | 15.486 |
| | Sharp | 1.835 | .507 | 13.107 | 1 | .000 | 6.268 | 2.321 | 16.932 |
| | Urbanization | -1.035 | .674 | 2.355 | 1 | .125 | .355 | .095 | 1.332 |
| | JCF Area | | | 5.341 | 4 | .254 | | | |
| | JCF Area I | 1.021 | .779 | 1.719 | 1 | .190 | 2.777 | .603 | 12.789 |
| | JCF Area II | 1.633 | .878 | 3.461 | 1 | .063 | 5.120 | .916 | 28.605 |
| | JCF Area III | 1.921 | .915 | 4.409 | 1 | .036 | 6.828 | 1.136 | 41.020 |
| | JCF Area V | 1.561 | .787 | 3.940 | 1 | .047 | 4.766 | 1.020 | 22.269 |
| | Victim Income Status | .395 | .389 | 1.029 | 1 | .310 | 1.484 | .692 | 3.183 |
| | Constant | -2.261 | .677 | 11.155 | 1 | .001 | .104 | | |
| Step 9[a] | Estrangement | -.719 | .401 | 3.212 | 1 | .073 | .487 | .222 | 1.070 |
| | Gun | 1.606 | .604 | 7.074 | 1 | .008 | 4.984 | 1.526 | 16.277 |
| | Sharp | 1.858 | .502 | 13.673 | 1 | .000 | 6.412 | 2.395 | 17.167 |
| | Urbanization | -.979 | .669 | 2.138 | 1 | .144 | .376 | .101 | 1.396 |
| | JCF Area | | | 4.904 | 4 | .297 | | | |
| | JCF Area I | .944 | .769 | 1.506 | 1 | .220 | 2.569 | .569 | 11.599 |
| | JCF Area II | 1.561 | .870 | 3.217 | 1 | .073 | 4.763 | .865 | 26.215 |
| | JCF Area III | 1.788 | .900 | 3.951 | 1 | .047 | 5.979 | 1.025 | 34.864 |
| | JCF Area V | 1.479 | .780 | 3.595 | 1 | .058 | 4.386 | .951 | 20.223 |
| | Constant | -1.966 | .598 | 10.801 | 1 | .001 | .140 | | |
| Step 10[a] | Estrangement | -.709 | .390 | 3.295 | 1 | .069 | .492 | .229 | 1.058 |
| | Gun | 1.372 | .571 | 5.773 | 1 | .016 | 3.945 | 1.288 | 12.085 |
| | Sharp | 1.666 | .477 | 12.195 | 1 | .000 | 5.291 | 2.077 | 13.478 |
| | Urbanization | .090 | .386 | .054 | 1 | .817 | 1.094 | .513 | 2.333 |
| | Constant | -1.405 | .497 | 7.993 | 1 | .005 | .245 | | |
| Step 11[a] | Estrangement | -.698 | .388 | 3.246 | 1 | .072 | .498 | .233 | 1.063 |
| | Gun | 1.371 | .571 | 5.768 | 1 | .016 | 3.941 | 1.287 | 12.066 |
| | Sharp | 1.672 | .476 | 12.307 | 1 | .000 | 5.320 | 2.091 | 13.537 |
| | Constant | -1.346 | .424 | 10.056 | 1 | .002 | .260 | | |
| Step 12[a] | Gun | 1.312 | .565 | 5.384 | 1 | .020 | 3.714 | 1.226 | 11.252 |
| | Sharp | 1.563 | .468 | 11.137 | 1 | .001 | 4.773 | 1.906 | 11.951 |
| | Constant | -1.455 | .420 | 12.020 | 1 | .001 | .233 | | |

a. Variable(s) entered on step 1: Estrangement, Gun, Sharp, Victim Sex, Victim Age Under 30, Marital Status, Cohabitation, Infidelity, Urbanization, Home, Home Hours, JCF Area, and Victim Income Status.

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