A COMPARISON OF INTIMATE PARTNER VIOLENCE IN MID-AND-OLD AGE: IS ELDER ABUSE SIMPLY A CASE OF SPOUSAL ABUSE GROWN OLD?

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Yongjie Yon
Bachelor of Applied Arts (Honours), Kwantlen Polytechnic University, 2007

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Examining Committee:

Chair: **Dr. Habib Chaudhury**
Associate Professor, Gerontology, SFU

Dr. Andrew Wister
Senior Supervisor
Professor & Chair, Gerontology, SFU

Dr. Barbara Mitchell
Supervisor
Associate Professor, Gerontology, SFU

Dr. Gloria Gutman
Supervisor
Professor Emerita, Gerontology, SFU

Dr. Jenny Ploeg
External Examiner
Associate Professor, School of Nursing, McMaster University

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ABSTRACT

The study used a national pooled dataset from the 1999 and 2004 Canadian General Social Surveys (GSS) to compare spousal abuse between mid-age adults (45-59 years) and older adults (>60 years). Two types of abuse: emotional/financial and physical/sexual are investigated. Three regression models on personal, relationship and environmental explanatory factors are examined to determine salient predictors of spousal abuse for each age group. Both similarities and differences were uncovered across the age groups. In general, the differences reflect the complexities of an aging population indicating the importance of social network, such as participation in social activities and community size. In addition, disability status and spousal drinking habits for both age groups were found to be associated with abuse. This study is first of its kind to examine spousal abuse among younger and older populations on the national level. The findings have implications for intervention programs for abused victims.

Keywords: intimate partner violence; elder abuse by intimate partner; risk and protective factors.

DEDICATION

To Daisaku Ikeda, my mentor in life.

Over and over I recall the moment, unforgettable even now, when I was about to be beheaded and you accompanied me, holding the reins of my horse and weeping tears or grief. Nor could I ever forget it in any lifetime to come. If you should fall into hell for some grave offense, no matter how Shakaymuni Buddha might urge me to become a Buddha, I would refuse; I would rather go to hell with you. For if you and I should fall into hell together, we would find Shakaymuni Buddha and the Lotus Sutra there. It would be as if the moon were illuminating the darkness, as if cold water were pouring into hot, as if fire were melting ice, or as if the sun were dispelling the darkness (Writings of Nichiren Daishonin, p. 850).

In lifetime after lifetime I will walk alongside with you, in heart and spirit, for the attainment of world Kosen-Rufu.

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CHAPTER 1

1.1 Introduction

Canada's population is aging. According to the 2006 census, the seniors' population of 65 years and over represents 13% of the total Canadian population. This figure is projected to increase to 17% by 2016 and 25% by 2031 (Statistics Canada, 2007). Moreover, the proportion of seniors aged 80 years and over is expected to increase at a more rapid rate than the proportion of older adults aged 65 years and older. For example, it is projected that one Canadian in 10 will be over the age of 80 by 2056, compared with one in 30 in 2005 (Statistics Canada, 2007). Some of the factors contributing to the increase in the older population are the gain in life expectancy and the aging of the large baby boomer cohort (Brzozowski, 2004).

Given the increase in population aging, issues relating to elder abuse are becoming more important. The World Health Organization (WHO, 2002a) has identified abuse of older adults as a global social problem that require urgent action. Due to the hidden nature of elder abuse, more research is needed to examine its occurrence, risk and protective factors. Even less known is the nature of spousal abuse or intimate partner violence (IPV) in older populations. In particular, whether it is a unique phenomenon or a continuation of an earlier pattern of abuse. In other words, is elder abuse by an intimate partner simply a case of spousal abuse grown old? At present, there is a dearth of research that

examines the factors commonly associated with spousal abuse across different age groups including the older populations (Reeves, Desmarais, Nicholls, & Douglas, 2007). In particular, there is a lack of research that examines this issue on a national level in Canada.

According to the WHO, elder abuse is defined as “a single, or repeated act, or lack of appropriate action, occurring within any relationship where there is an expectation of trust which causes harm or distress to an older person” (2002a). The perpetrators of elder abuse can be family members including spouses, ex-partners, adult children, siblings and non-familial members including caregivers and strangers. However, the lack of uniform definitions of elder abuse is complicated by its various types and limited sample size. Similarly, given the different manifestations of elder abuse, there may also be different causal attributes for the different types of abuse. Furthermore, under reporting has hampered research on elder abuse making it difficult to thoroughly examine the prevalence of elder abuse.

Over the past three decades, domestic violence has received increasing attention as a social problem. In particular, spousal violence has become an important social issue that not only affect the victims, but also family members, as well as the society (Patterson, 2003). For the victims, spousal abuse can result in short and long-term physical (Horton, Murray & Frenk, 2008), economic (Johnson, 2006), psychological and emotional (Alasker, Moen, & Kristoffersen, 2008; Johnson, 2006) consequences.

In the 2004 General Social Survey (GSS), female victims of spousal abuse often reported negative psychological effects that included depression, anxiety attacks, feelings of shame as well as reoccurring sleeping problems (Johnson, 2006). The costs to families and society can be severe when children witness spousal violence as it may lead to behavioural maladjustment and reproduction of future violence (Osgood & Manetta, 2002; Penhale, 1999). At the societal level, the costs of IPV can also translate into social welfare costs by having to provide needed services such as counselling, shelter, justice and crisis help lines (Johnson, 2006). It is estimated that the Canadian annual health care costs relating to the use of abuse-related services would represent at least $500 million with additional costs of up to $225 million associated with abuse-related pain and suffering (Spencer, 2000).

National data collected as part of the GSS has provided several estimates of the prevalence of spousal assaults since 1993. According to the GSS, IPV has decreased over the past three decades. However, a significant number of people still experience abuse and violent assaults. Furthermore, in general, women are more likely to experience abuse than men. For example, over the five-year period between the 1999 GSS and the 2004 GSS, women were two-and-a-half times as likely as men to report violent assaults. This estimate, when apply to the national level; indicate that 254,000 women and 89,000 men experience spousal abuse (Johnson, 2006).

Despite 30 years of research and attention on IPV, few studies have compared spousal abuse among mid-and-old age intimate partners. With the

expansion of older population, there is an increase in vulnerability to victimization. Furthermore, given the hidden nature of family violence, it has been estimated that the majority of cases involving IPV is significantly under reported. It is also unclear whether spousal abuse at an older age is different than spousal abuse at a younger age. Most research on IPV does not distinguish spousal abuse across different age groups (Mouton, 2003; Shibusawa & Yick, 2007). While some research has suggested that IPV among older women is similar to physical and sexual abuse among younger women (Bonomi et al., 2007), other research has found changes in risk factors as the individuals age (Mouton, et al., 2004). Yet, there is little research to examine the risk and protective factors of IPV across age groups. An examination of the circumstances surrounding IPV among mid-and-older populations, as well as the characteristics of the victims and perpetrators, should help shed light on the topic of IPV. This information will be useful for policy makers and front line workers to develop prevention and intervention strategies for abused victims.

In order to address these research gaps, this study uses national data from the GSS on Victimization 1999 (Cycle 13) and 2004 (Cycle 18) to examine the risk and protective factors of IPV. These surveys are pooled in order to obtain a sufficient sample size to investigate patterns of abuse among mid-and-older intimate partners. The following research questions are examined:

1. What is the prevalence of spousal abuse among mid-and-old age adults?

2. How is spousal abuse at mid-age different from spousal abuse at older age? Specifically, what are the risk and protective factors associated with IPV for the victims and perpetrators?

2: LITERATURE REVIEW

2.1 Overview of Spousal Abuse and Elder Abuse

This chapter will begin with an examination of the background, impacts and definitions of spousal violence in Canada, as well as the consequences of elder abuse. This overview provides elucidation of the often-blurred boundaries of spousal and elder abuse. Due to the limited comparative research on IPV among mid-and-old age adults, this study uses the term 'spousal abuse' to refer to abuse among mid-age adults, and 'elder abuse by intimate partners' to refer to abuse occurring among older persons. Finally, 'intimate partner violence' (IPV) is used to refer to both spousal and elder abuse by intimate partners.

2.1.1 Spousal Abuse

There are many definitions of spousal abuse as it can manifest itself in various types and severities. In Canada the definition of spousal abuse is derived from the Canadian Criminal Code, which defines it as "physical or sexual violence or psychological or financial abuse within current or former marital or common-law relationships, including same-sex spousal relationships" (Johnson, 2006, p9).

Investigating the prevalence and etiology of spousal abuse can be difficult and challenging. Like elder abuse and other domestic violence, spousal abuse is also a hidden crime that occurs behind closed doors (Mihorean, 2005; Ogrodnik, 2007). Victims of domestic violence often fear retaliation from their abusers, as

they may be emotionally and financially dependent upon them (Mihorean, 2005; Walsh et al., 2007). Uncovering the prevalence of family violence against older adults is even more challenging, since older adults may have fewer social networks, more mobility problems due to poor physical health, and are more likely to be isolated in the community (Au Coin, 2003).

2.1.2 Elder Abuse

As a result of the aging population, there are many implications for the provision of adequate health care and meeting the needs of seniors. Furthermore, issues on the victimization of older adults are becoming increasingly important (McGechie, 2007). The first and only Canadian national survey on elder abuse conducted in 1989 found that 4% of the elderly population experienced some serious form of maltreatment and abuse in their home. Financial abuse was most commonly reported (2.5%), followed by chronic verbal aggression (1.4%), physical violence (0.5%) and neglect (0.4%) (Podnieks, 1992).

Similar to spousal abuse, elder abuse can take the form of psychological or emotional, physical or sexual and financial abuse. Main perpetrators are adult children, a spouse or an intimate partner, caregiver and other family members (Statistics Canada, 2001). Although seniors have consistently been the least likely victims of all violence, research has indicated that given their increased likelihood of deteriorating physical, mental and emotional health, as well as increasing dependencies, older adults may be more at risk for victimization (Justice Canada, 2003).

Some researchers have explained elder abuse by intimate partners as a continuation of spousal abuse and maintained that there is no distinction between them (Hotaling, Finkelhor, Kirkpatrick & Straus, 1988; Jasinski & Dietz, 2003). While there is limited research on IPV among older women, one study has found that the lifetime prevalence of IPV in older women is consistent with estimates of physical violence in younger women. However, in terms of the frequency and duration, older women experienced higher rate of victimization (e.g., 20 or more abusive episodes) and endure longer duration (e.g. three to ten years) (Bonomi et al., 2007).

2.2 Canadian and International Prevalence of IPV

Despite the difficulty of obtaining data on the prevalence of IPV, for the past few decades Statistics Canada has been collecting national data to monitor, prevent and reduce family violence. The prevalence and incidence of IPV is monitored through several national sources that included the yearly updates from the police-reported statistics and the in-depth homicide survey, as well as periodic victimization surveys such as the GSS (Patterson, 2003).

Up until 1993, police-reported statistics were the only national source of information on the nature and prevalence of IPV. Through the Incident-Based Uniform Crime Reporting (UCR2) Survey, information on criminal offences are reported, detected and collected by the police. In addition, the UCR2 provides detailed information on the crime, such as the characteristics of the victims and offenders and the nature of the incidents. However, it is well documented that

these police reports are limited and not representative as they only include reported cases of victimizations (Mihorean, 2005).

Nevertheless, information gathered from the UCR2 is useful as it provides a valuable profile of the victims and offenders' characteristics and relationships. These reports are gathered from a range of police services across the country with data coverage ranging from 53% of the Canadian population in 2000 to 98% in 2008 (Statistic Canada, 2009). Furthermore, in an effort to obtain a more comprehensive view of IPV, a national population survey on spousal violence against women, *The Violence Against Women Survey,* was introduced in 1993, followed by a more generalized national GSS victimization surveys that included IPV against both women and men in 1999 and 2004 (Mihorean, 2005).

For the first time, data from GSS 1999 and 2004 allowed researchers to examine the 5-year trend of IPV. Through the GSS questions, Statistic Canada was able to randomly survey samples of approximately 42,000 Canadian women and men on violence within marital or common-law relationships (Mihorean, 2005; Ogrodnik, 2007). Data from the GSS are more representative than the UCR2 because the responses of each person interviewed are weighted to produce estimates for the overall population. The estimates are expected to be within 1% of the true population (Johnson, 2006).

Results from the 1999 GSS found that 8% of women and 7% of men of any age who were married or living common-law experienced some type of IPV in the 5 years between 1993 and 1999 (Pottie Bunge, 2000). The 2004 GSS results indicate that the prevalence of IPV was 7% for female and 6% for male.

These figures represent a small drop in prevalence rates for female and male victims. However, females still experience more serious abuse and are more likely to sustain injury than males (Mihorean, 2005). Furthermore, examining the prevalence of emotional and psychological abuse is important because they are often the precursors to physical violence in a relationship (Mihorean, 2005; Pottie Bunge, 2000; Reinfret-Raynor, Rious, Cantin, Drouin & Dube, 2004).

The 2004 GSS found that emotional and financial abuse (17%) is 2.5 times more common among partners than physical abuse (7%). Moreover, it has been estimated that in the five years preceding the 2004 GSS, 17% of all Canadians who are married or living in a common-law relationship experienced some form of emotional or financial abuse. This percentage represents about 3 million Canadians aged 15 years and over. Similar to the 5-year trend of general spouse violence, there is a small but significant decline in emotional and financial abuse since 1999 GSS (Mihorean, 2005).

Some of the most common types of emotional abuse, based on the 2004 GSS, are calling the victim names or putting the victim down (10%), being jealous and not wanting the victim to talk with other men/women (9%), and demanding to know who the victim is with and where they are at all times (8%). Overall, both women (18%) and men (17%) are equally likely to experience emotional and financial abuse with the exception that women are more likely to experience being put down and called names (Mihorean, 2005).

Based on the 2002 UCR2 62% of IPV victims are females (Brzozowski, 2004). The most frequent types of violence committed by current spouse are

common assault (73%), followed by major assault (16%). However, the prevalence of uttering threats and criminal harassment are higher among ex-spouses. Examples of criminal harassment include repeated phone calls, being followed, and leaving threatening voice messages (Brzozowski, 2004).

The problem of IPV is not limited to any particular culture or country. International research on family violence has found similar rates of spousal abuse, especially within the developed countries. The prevalence of IPV in the United States (U.S.) comes from the National Crime Victimization Survey (NCVS). This survey is one of the largest household surveys conducted by the U.S. federal government to examine the frequency, characteristics, and consequences of crimination victimization. The 1999 NCVS indicated that a total of 22.1% of persons aged 12 or older in U.S. have experienced violent crime by a current or former spouse, boyfriend, or girlfriend (Tjaden & Thoennes, 2000).

In another U.S. study, Mouton (2003) found that IPV, especially among women, continues across the life course into older age. He concluded that IPV contributes to the growing problem of elder abuse indicating that 5.3% reported physical abuse and 22.8% reported being victims of verbal abuse. Like the Canadian data, IPV is primarily a crime against women. Based on the NCVS, 64% of violence against women is committed by a current or former husband, cohabiting partner, boyfriend or date (Tjaden & Thoennes, 2000).

2.3 Similarity of Family Violence and Elder Abuse

There is a growing body of evidence suggesting that different types of violence from childhood to older age share similar etiologies, risk and protective factors (Harris, 1996; Hotaling et al., 1988). Given the limited research on elder victimization, it is useful to apply existing knowledge of family violence to abuse among older adults. Research in the area of family violence, especially violence against women and child abuse, has gained public attention and awareness since early-to-mid 1970s (Hotaling et al., 1988). Over the past three decades of research, there has been an accumulation of knowledge on its incidence, prevalence, risk and protective factors, as well as interventions and prevention for the different types of family violence. However, advancement in this field has been criticized by the lack of knowledge integration within family violence research (Buttell, 1999). Researchers are now interested in examining family violence in a unified way and applying its concepts to IPV research across different age groups.

First and foremost, family violence is most often associated with circumstances of power imbalance that produce many similarities and shared features between elder abuse by intimate partners and other types of domestic violence (Hotaling et al., 1988; Penhale, 1999). Empirical research on the risk factors associated with IPV is similar to the risk factors for other types of family violence. For example, disability and functional mobility problems (Jasinski & Dietz, 2003), economic deprivation (Johnson, 2006), and poor health (Lowenstein

& Ron, 1999) are among the many personal characteristics of the victims at risk for abuse.

Similarly, those who have committed IPV also share similar features with the perpetrators of other types of domestic violence. For example, perpetrators often have drug and/or alcohol problems (Coker, Smith, McKeown & King, 2000; Stickley, Timofeeva & Sparren, 2008b), histories of anti-social or violent behaviours (Wolf, Strugnell, & Godkin, 1982), and have even been victims of family violence in the past (Reinfret-Raynor et al., 2004). Furthermore, the effects of violence are universal as victims of domestic violence typically suffer from long-term self-esteem issues, depression and self-blame (Alasker et al., 2008) that may place them at greater risk for further victimization. Although older victims of domestic violence might sustain more serious injury and take longer time to recuperate, studies have shown no significant difference in injuries levels when compared to younger victims (McGechie, 2007; Statistics Canada, 2001). Additionally, research has indicated association with abuse and dependency. It has also been suggested that victims may become more dependent with increase victimization (Hotaling et al., 1988).

Although elder abuse is not often compared to the problem of spousal abuse, it is, nevertheless, important to make such a comparison as it is speculated that some form of elder abuse is spousal abuse that has been ongoing for a long time (Hotaling et al., 1988). While most researchers are quick to pin-point adult children as the main perpetrator for elder abuse, research by Pillemer and Finkelhor (1988) has found that in all types of elder abuse, the

perpetrator is the spouse in 58% of the cases and the adult children in 42% of the cases. This difference becomes more apparent when physical abuse is considered, where abuse by a spouse made up 60% of the cases of elder abuse. A more recent report also indicated that 30% of elder abuse is perpetrated by males who are 65 years and older (Statistics Canada, 2005a).

Although this comparison can be very useful to understand the nature of IPV, observations must be made with caution because they are based on broad trends. In order to comprehend the nature of IPV, it is important to examine the theoretical underpinnings of abuse and victimization.

2.4 Theoretical Background of Abuse and Victimization

Domestic violence and abuse is a complicated problem that encompasses all forms and types of abuse. There is no single theory that can adequately describe this multifaceted problem (Shugarman, Fries, Wolf & Morris, 2003). This study adopts an ecological perspective on the micro-and-macrosocial theories to explain abusive behaviours and examine the relationships of IPV with various age groups. The use of the ecological model to explore the interactions between the individual and society allows IPV research to be linked with broader social issues and expose IPV as a human rights issue beyond the confines of private dwellings. More discussion on the ecological model is presented later in the chapter. Due to the limitations in the available datasets, it is impossible to test specific theories. Instead the theories and typologies are used to help address the multifaceted risk and protective factors associated with IPV among the victims and the abusers.

Due to the relatively short research history, theories on elder abuse are in a developmental state. For the purpose of this thesis, theories will be divided into two major theoretical categories: macrosocial and microsocial theories (Barnes, 1999; Hampton et al., 1993). The macrosocial approach to violence examines the societal influence on the propensity for violence. The microsocial approach, however, considers the impact of the family and individual characteristics of the victims and abusers (Hampton et al., 1993).

2.4.1 Macrosocial Theories

The macrosocial theories included in this review are the ecology of violence and the feminist theoretical model. These models provide useful frameworks for the discussion of IPV.

2.4.1.1 The Ecology of Domestic Violence

The issues of IPV among various age groups are complicated and multifaceted (Shugarman et al., 2003). It has been argued that individual or community-level analysis may not capture the full picture of IPV; rather it should focus on a multi-level approach (Lauritsen & Schaum, 2004). To better understand victimization, it is important to contextualize violence across individuals, families, and communities. The ecological framework is a useful model to integrate micro and macro processes (Schiamberg & Gans, 2000).

The ecological framework proposed by Schiamberg and Gans (2000) provides a comprehensive understanding of how structural and ideological conditions, regulatory policies and programs, community-level supports,

environmental conditions, as well as family and individual characteristics and processes, are intertwined. Such a framework helps to organize and explain the occurrence of violence across the lifespan, within a larger social context. It further provides a holistic tenor for the conception of IPV across the different age groups.

Another dimension to the ecological framework is the recognition of the life course perspective that provides both a developmental and historical framework for the study of domestic violence. This perspective offers several assumptions on the multiple time clocks and the importance of social and diachronic contexts to victimization (Schiamberg & Gans, 2000). These assumptions explore the time and events that shape individual human development within a dynamic interaction of micro and macro social contexts. Such perspectives are important in understanding IPV especially for an older population because their earlier experiences of victimization can have profound accumulative impacts on the individual's or family's life span.

The foundational ecological framework by Bronfenbrenner (1979) proposes that the conceptualizations of individuals and their families are nested within four interdependent levels of the environment: macrosystem, exosystem, mesosystem and microsystem. The macrosystem encompasses the socio-historical ideologies and cultural values in the society (Bronfenbrenner, 1979). Examples pertaining to IPV include the notion of ageism and sexism that make older women more vulnerable to domestic violence. The exosystem includes external environments that provide regulatory structures to the individuals and families. Government and protection agencies, and legislations such as adult

protection and mandatory reporting, are examples of exosystem structures. The mesosystem is the relationship between individuals on a regular basis (Bronfenbrenner, 1979; Schiamberg & Gans, 2000). An example relating to IPV pertains to the influence of stressors on relationships between older adults and their caregivers (Coyne, Reichman, & Berbig, 1993; Grafstrom & Winbald, 1993). Finally, the microsystem levels of the environments refer to the immediate context in which human development occurs. This system can include family and close friends (Bronfenbrenner, 1979; Schiamberg & Gans, 2000).

2.4.1.2 Feminist Theoretical Model

Gender and age are significant variables to consider when explaining IPV. No discussion would be complete without an examination of the roles of males and females. In general, males and females are taught about their roles at a young age. Boys are taught and rewarded to be aggressive, whereas girls are taught to be subservient towards males (Barnes, 1999).

Feminist theorists contend that women have historically been marginalized in a patriarchal society (Aitken & Griffin, 1996; Barnes, 1999). One of the central feminist themes is the emphasis on women's experience and the recognition of the existing gender inequalities in the society that subordinates women (Crichton & Bond Jr., 1999). The conceptualization of abuse among older adults within feminist models explains that violence is a reflection of unequal and oppressive power relations between the sexes. It also recognizes that older women are significantly more at risk for violence due to a lifetime of oppression and fewer accumulated resources (Zink, Regan, Jacobson Jr., Pabst, 2003).

In particular, these older women's experience of an ongoing abusive relationship can be understood from the cohort, period and aging effects. Today's cohort of older women were brought up at a different time where they are socialized into traditional gender roles and are less likely to have received a good education or acquired job skills, resulting in powerlessness and dependencies on their husbands (Zink et al., 2003). Furthermore, the period in which these women lived was a time when IPV was normalized within a society where there was a general ignorance about it. Finally, given the lifetime IPV experience of older women, their deteriorating health due to older age increases their likelihood of remaining in an abusive relationship, thus making older women's experiences significantly different from their younger counterparts (Zink et al., 2003).

2.4.2 Microsocial Theories

There are several microsocial theories and typologies included in this review. While the first theory, the psychopathological model, focuses on abusers, the next two theories, dependency theory and the situational stress model, focus on the characteristics and situations leading to victimization. Finally, the review will end with Ramsey-Klawsni's (2000) typologies of elder abuse.

2.4.2.1 Theories of Psychopathology

Theorists have examined the traits and characteristics of abusers and victims to identify potential explanations of victimization. The basic premise of the psychopathological model for abuse comes from mental disorders or conditions, such as alcoholism, that precipitate violence and aggression (Hampton et al.,

1993). In addition, perpetrators often have histories of aggressive behaviours (Wolf et al., 1982) and may have even been victims of past domestic violence, such as child abuse (Reinfret-Raynor et al., 2004). Due to proximity with these types of people, vulnerable groups, such as older family members, women and children, may be more at risk for domestic violence (Hampton et al., 1993).

According to Anetzberger's (2000) model, elder abuse is primarily a function of the characteristics of the perpetrator of abuse and secondarily a function of the characteristics of the older adult experiencing the abuse. Research suggests that risk factors associated with the perpetrator of elder abuse are more predictive of maltreatment than those associated with the older adult. In general, perpetrators' characteristics are important to consider for most forms of abuse (Anetzberger, 2000).

The influence of psychopathology is evident and supported by many studies on elder abuse. For example, among abusers, 31% had a history of psychiatric illness, while 43% had substance abuse problems (Wolf et al., 1982). While there is no doubt that psychopathology may contribute to violence against older adults, however, this theory alone is inadequate to answer the research questions as it does not address the history of violence within the family. It is not known whether psychopathology is related to the continuance of spousal abuse or that somehow the effects of aging have triggered violence towards the older spouse.

2.4.2.2 Dependency Theory

Difficulty in obtaining information from abusers has led most researchers to focus on the characteristics of the victims, especially in the case of neglect. Some research has suggested that dependency on others due to old age and frailty may provoke the onset of abuse (Spencer & Gutman, 2008). In other words, disabilities and impairments may cause seniors to become dependent on their caregivers who may, in turn, feel overburdened by the demands of caregiving (Buttell, 1999; Coyne et al., 1993; Miller-Perrin & Perrin, 1997).

Dependency theory is closely associated with the social exchange theory that explains that all human interactions are governed by attempts to maximize rewards and minimize costs. Under this proposition, positive interaction is guided by mutually beneficial exchange between two parties. However, a negative interaction arises when there is imbalance in mutual exchange resulting in increased risk for elder maltreatment (Hampton et al., 1993).

Research on dependency theory and its association with elder abuse literatures have been inconsistent (Miller-Perrin & Perrin, 1997). There are at least two different types of dependencies related to IPV. First, the victims are dependent upon the abuser for help with activities of daily living (ADLs). Second, the abusers are dependent on the victims. While there is support for both types of dependencies, research by Wolf and Pillemer has indicated that two-thirds of the elder abusers are dependent on their victims in some way, especially in the case of financial abuse (1985; 1989). Dependency theory within the context of caregiving is related to another theory – the situational stress model.

2.4.2.3 The Situational Stress Model

The proponents of the situational stress model contend that stress, as the outcome of caregiving, is often the preface to abuse and aggression (Litwin & Zoabi, 2004). The stress model is one of the most widely used models to explain abuse and neglect (Hampton et al., 1993; Litwin & Zoabi, 2004). In the case of abuse, poor health and mental impairments are often the risk factors for caregiver stress leading to care receiver dependency and overburdening the caregiver (Coyne et al., 1993; Grafstrom & Winbald, 1993).

Closely associated with this model, the conflict theory contends that the clash between providing needs for the seniors and other family members often leads to stress and instability. Although the situational stress model has some similarities with the dependency theory, it has been criticized for promoting victim blaming. Furthermore, it is well known that not every caregiver who experiences stress resorts to violence (Mihorean, 2005; Pillemer & Finkelhor, 1989).

2.4.2.4 Typology of elder abuse offenders

Five types of offenders have been identified by Ramsey-Klawsni (2000): 1) the overwhelmed, 2) the impaired, 3) the narcissistic, 4) the domineering, or bullying, and 5) the sadistic. This typology is an attempt to help synthesize the theories and conceptualize the causes of elder abuse which may be useful for the development of interventions.

The first two types of offenders are similar to the dependency theory and situational stress model. Although the ‘overwhelmed offenders’ are qualified and have good intention to provide care, they may lash out physically or verbally at

their victims when the amount of care exceeds their ability. Similarly, while the 'impaired offenders' may also have good intention in providing care, they are often not fit or qualified to provide adequate care which may lead to unintentional neglect. This type of offender is usually the spouse or other family members.

The next sets of offenders, unlike the overwhelmed and impaired, do not have good intentions. 'Narcissistic offenders' are driven by their personal gains to use other people to meet their needs. Typically, narcissistic offenders would commit financial abuse. Similar to the psychopathological model, the 'domineering' and 'sadistic offenders' may possess predispositions to attack seniors. However, the difference between sadistic offenders and domineering offenders lies in their feeling of pleasure to inflict extreme violence on their victims.

2.5 Risk and Protective Factors of Abuse by Intimate Partners

In general, research on the risk factors for spousal violence focuses on women in the child-bearing/child-rearing years and tends to neglect older women as victims of IPV (Phillips, 2000). This is an important gap in family violence literature because one cannot assume that the needs of abused older women are the same as those of their younger counterparts. The risk factor literature on mistreatment of older adults is both limited and inconsistent (Bonnie & Wallace, 2002). There is not enough research on the risk factors for domestic violence among older women to make any adequate comparisons between spousal abuse among mid-age and older adults.

The sources of the risk factors for IPV, in the following review, have been obtained from spousal violence and elder abuse literature. The following sections will provide a broad overview of risk and protective factors associated with domestic violence. These factors will provide a context to the understanding of IPV among different age groups. The risk factors identified in the literature review can be loosely classified into three main groups: victim, perpetrator and environmental risk factors. These will be linked to the theories, where applicable. Finally, the literature review will end with a brief overview of the protective factors against IPV.

2.5.1 Victim's Risk Factors

Similar to most research on victimization, being female is a major risk factor for spousal violence. Consistent with the feminist perspective, women are often victimized by their spouse, ex-partners and boyfriends (AuCoin, 2005; Bachman & Saltzman, 1995; Mears, 2003; Ockleford et al., 2003; Tjaden & Thoennes, 2000). Furthermore, research has consistently shown that younger women between 18-24 are at the highest risk for all types of violence against women (Johnson, 2006; Ludermir, Schraiber, D'Oliveira, Franca-Junior & Jansen, 2008; Mihorean, 2005; Rennison & Rand, 2003; Rennison, 2001; Sorenson, Upchurch & Shen, 1996). Similarly, this age pattern is also reflected among the older population. Seniors in the young-old category (55-65 years) reported higher prevalence of IPV than the old-old category (85+ years) (Bonomi et al., 2007; Jasinski & Dietz, 2003; Mouton, 2003).

The issue of age as a risk factor has also been inconsistent. While most research indicates a higher prevalence of abuse among seniors in the young-old category, some researchers have been speculating that abuse may be more hidden and common among the old-old due to their decreased physical and mental capacities as well as their predilection to remain silent in the face of victimization. According to the situation stress model or dependency theory, this decline in mobility and health often makes older adults more dependent and susceptible to caregiver stress, thus making them more vulnerable to abuse (Cazenave, 1979; Coker, Smith, McKeown & King, 2000; Jasinski & Dietz, 2003; Penhale, 1999; Rennison & Rand, 2003; Stickley et al., 2008b; Zink, Jacobson, Regan, Fisher & Pabst, 2006b; Zink et al., 2003). Likewise, related to the research using age variables, research has found that the age difference between partners is important in predicting IPV especially when the partners have an age difference of more than 10 years (Alderidge & Browne, 2003; Coker et al., 2000). Yet, other researchers have found that after controlling for other variables, age is no longer associated with violence (Cubbins & Vannoy, 2005; Miller, 2006).

Other risk factors commonly associated with IPV are the presence of mental illness and poor health that causes the victims to be more dependent on the abusers. Perhaps due to the imbalance of social exchange between the victims and the abusers, literature suggests that women with severe mental illness are more at risk for victimization. Mental conditions may include personality disorders, depression, anxiety disorders, substance abuse,

schizophrenia as well as cognitive impairments associated with aging such as dementia (Alderidge & Browne, 2003; Friedman & Loue, 2007; Horton et al., 2008; Koopman et al., 2007; McGechie, 2007; Buttell, 1999; Mouton, 2003; Mouton, Rovi, Furniss & Lasser, 1999). Poor health, such as chronic illness, that results in disabilities and impairments to ADLs is also significantly associated with victimization (Jasinski & Dietz, 2003; Lownstein & Ron, 1999; Mouton, 2003).

Furthermore, it has been found that victims of IPV rarely experience one type of abuse. They have often experienced frequent victimizations and multiple assaults (Alderidge & Browne, 2003; Bonomi et al., 2007; Miller, 2006). Exposure to multiple abuses is associated with an increased risk for severe physical abuse (Appel & Holden, 1998; Walsh et al., 2007). For example, emotional and psychological abuse is often identified as precursors to physical violence (Coker et al., 2000; Mihorean, 2005). In other words, not only is emotional and psychological abuse an outcome of multiple risk factors, it is also, in itself, an indicator and risk factor for future violence. Understanding how these multiple assaults occur at the various ecological levels may provide more holistic insights into the nature of IPV.

2.5.2 Perpetrator's Risk Factors

Research on domestic violence has pinpointed the spouse as the main perpetrator. Even within elder abuse literature, it is found that spouses commit the highest proportion of victimizations, followed by adult children and other family members (Jasinski & Dietz, 2003; McGechie, 2007; Mears, 2003; Ockleford et al., 2003; Pillemer & Finkelhor, 1988; Rennison & Rand, 2003; Zink,

Fisher, Regan & Pabst, 2005). This may, in part, be due to proximity and opportunity factors, as well as marital stress.

A precipitating factor associated with increased risk of IPV is related to the type of spousal relationship. For example, second marriages at younger and older age are both associated with conflicts and victimization (Lowenstein & Ron, 1999; Zink, T., Jacobson, J., Pabst, S., & Fisher, B., 2006a). Similarly, those in common-law relationships report the highest percentage of victimization, followed by those who are separated and divorced (Coker et al., 2000; Johnson, 2006; Mihorean, 2005; Ogrodnik, 2007; Pottie Bunge, 2000; Reinfret-Raynor et al., 2004; Rennison & Rand, 2003; Rennison, 2001; Stickley, Kislitsyna, Timofeeva & Vagero, 2008a). Furthermore, the length of separation is also associated with increased risk of IPV (Alderidge & Browne, 2003).

There are also other characteristics of perpetrators associated with a propensity to commit family violence. For example, male unemployment is a major factor for domestic violence (Campbell et al., 2003; Coker et al., 2000; Glass, Laughon, Rutto, Bevacqua & Campbell, 2008; Jasinski & Dietz, 2003). The risk for victimization is further heightened when the female partner is employed (Brzozowski, 2004). There are inconsistent findings in terms of employment and prevalence of IPV. Closely relating to the feminist perspective, Villarreal (2007) explains that the inconsistency of employment is related to controlling behaviour of the male partner. IPV is likely to occur when the male partner exerts control over the spouse's employment status.

In contrast, Cubbins and Vannoy (2005) have found that there is a nonlinear effect between employment and domestic violence. They argue that employment is a crude measure of victimization, suggesting that the nature and quality of the job can provide a more complete explanation of domestic violence. The examination of the workplace corresponds to the mesosystem analysis of the ecological model. This analysis can explain how stressful work conditions or negative relationships with co-workers can carry over to family relationships.

In addition to employment status, most abusers exhibit controlling behaviours that limit their spouse's social contact. Examples of controlling behaviours may include limiting the victim's contact with other men/women or with family and friends, insisting on knowing where the victim is at all times, and who s/he is with, preventing the victim's access to family income as well as stalking and sexual jealousy (Alderidge & Browne, 2003; Bonomi et al., 2007; Glass et al., 2008; Johnson, 2006; Mihorean, 2005; Miller, 2006; Villarreal, 2007).

One of the more consistent findings on IPV as well as other types of domestic violence is the association of alcohol and substance abuse (Alderidge & Browne, 2003; Campbell et al., 2003; Coker et al., 2000; Cubbins & Vannoy, 2005; Flinck, Paavilainen & Astedt-Kurki, 2005; Jasinski & Dietz, 2003; Lee, 2007; Mouton, 2003; Penhale, 1999; Raghavan, Mennerich, Sexton & James, 2006; Reinfret-Raynor et al., 2004; Stickley et al., 2008a; Stickley et al., 2008b). As supported by the psychopathological model, studies from the 1999 GSS have found that spousal violence rates are six times higher for people whose partners

drank five or more drinks in one occasion than for someone with a partner who drank less (Pottie Bunge, 2000).

Furthermore, studies have indicated that the prevalence of alcohol abuse together with domestic violence is higher among younger couples because alcohol addiction is often associated with additional risk factors such as low income, unemployment and general exposure to violence (Brzozowski, 2004; Phillips, 2000). Most studies have found consistent findings on alcohol abuse and domestic violence. One meta-analysis, however, has concluded that research on alcohol consumption and IPV is biased due to the lack of empirical evidence to support alcoholism and violence (Gil-Gonzales, Vives-Cases, Alvarez-Dardet & Labour-Perez, 2006).

2.5.3 Environmental Risk Factors

There are some risk factors that are beyond the characteristics of the victims and perpetrators. These factors can have the same, if not greater, influence on the propensity for violence. Despite the well-documented relationship between the characteristics of the environment and violent victimization, most research typically focuses on the individual and other interpersonal characteristics (Raghavan et al., 2006). The social environment, as indicated by the ecological framework, is an important attribute to the study of family violence. Several studies have indicated that social isolation and the lack of social support is often associated with higher prevalence of victimization (Cazenave, 1979; Penhale, 1999; Reinfret-Raynor et al., 2004). Similarly, social disorders such as public intoxication and selling of drugs are associated with

violence and have been linked to increase risk of IPV (Frye, 2007; Raghavan et al., 2006).

There are inconsistent findings on whether the place of residence (i.e. urban or rural areas) is associated with violence. There are several studies that seem to indicate no relationship between the prevalence of IPV and place of residence (Bachman & Saltzman, 1995; Mihorean, 2005; Pottie Bunge, 2000; Rennison & Rand, 2003); other studies have found higher rates of domestic and spousal violence in urban areas (Sorenson et al., 1996) and still other studies in rural communities (Marmolejo, 2008).

The prevalence of violence against women can also be explained through the feminist perspective where women are oppressed socially, economically, and politically (Penhale, 1999). This perspective emphasizes the role of the personal and societal attitudes towards violence and women. For example, men's attitudes on the seriousness of violence against women (Stickley et al., 2008), levels of controlling behaviour (Bonomi et al., 2007) and attitudes toward marriage and sexuality are all associated with women's experience of IPV (Flinck et al., 2005; Morash et al., 2007).

2.5.4 Protective Factors

While researchers have recognized the importance of examining protective factors, research in this area has been very limited (Bonnie & Wallace, 2002). One study found that living in a communal community characterized by social cohesion is associated with lower level of IPV and other domestic violence (Stickley et al., 2008). Furthermore, since lack of employment is identified as a

potential risk factor, especially for women, Campbell et al. (2003) found that increasing employment opportunities are associated with reduction of IPV. More research is clearly needed to examine these protective factors as they can be put in place to prevent the perpetuation of abuse (Zink et al., 2006b).

2.6 Revisiting the Purpose of this Research

The purpose of this study is to examine whether IPV is different among mid-age and older adults. Most studies in the area of IPV have focused on younger women and few have examined its extent in women age 55 and older (Rennison & Rand, 2003). Furthermore, there is a tendency for health care providers to think of IPV as a problem associate with younger women but research suggests that abuse of older women is common and serious (Bonomi et al., 2007; Ockleford et al., 2003). In spite of promising research on partner violence in older women, there are not many population-based and explanatory studies that delineate the prevalence and types of abuse by spouse or partner (Bonomi et al., 2007; Jasinski & Dietz, 2003; Mouton, 2003).

Until recently most knowledge on spousal abuse among older women has been gleaned from research on elder abuse, as well as other smaller comparison studies on IPV among younger and older women (Rennison & Rand, 2003; Zink et al., 2005). These findings have indicated some similarities and differences in IPV among the different age groups (Rennison & Rand, 2003). In addition, research has found that the risk factors in younger femicides are consistent with the risk factors for older femicides. Thus, it is speculated that victims of IPV among older adults may also share similar risk factors to IPV among younger

adults (Glass et al., 2008). Similarly, another research study found that when a woman is functionally independent, her risk factors for abuse would mirror those of IPV. However, when she becomes functionally dependent, her risk factors would mirror those of caregiver abuse and neglect (Mouton et al., 2004). More research is needed to clarify whether abuse of older women is spousal abuse grown old.

Given the limited research conducted in this area, this exploratory study compares IPV among mid-and-old age adults through the examination of various risk and protective factors. The study utilizes the ecological approach to examine multi-level risk and protective factors associated with IPV on mid-and-old age adults.

There are two competing hypotheses for the study. Some research suggests that there are no differences between IPV among mid-and-old age adults. Indeed the National Committee for the Prevention of Elder Abuse (NCPEA, 2006) has found that half of IPV involves couples that have experienced abuse at earlier age that suggests evidence for spousal abuse grown old. Jasinski and Dietz (2003) found that many older women have been the victims of domestic violence throughout their lifetime and have simply aged into elder abuse. From a theoretical perspective, abusers of IPV may be explained through psychopathological model where characteristics of the abusers such as domineering and controlling behaviours as well as substance or alcohol abuse problems, are similar across different age groups (Bonomi et al., 2007).

Conversely, some research suggests that there are significant differences between IPV among mid-and-old age adults. Although the spouses are the main perpetrators for both types of domestic violence, it is possible that the risk and protective factors for the older adults will reflect the complexities of the aging population, such as unexpected decline in health and mental conditions thus making spousal abuse at older age unique and different from spousal abuse at mid-age (NCPEA, 2006). For instance, a European study of elder mistreatment has found that the majority of older women did not experience abuse before the age of 60. Furthermore, it was found that the risk of victimization increases with age and frailty (Ockleford et al., 2003).

It is conceivable that elder abuse by intimate partners is different from spousal abuse at mid-age because there are many qualitative differences across different age groups. For example, older women may have experienced more discrimination over their lifetime (Zink et al., 2003), endured more debilitating health problems and mental conditions (Lowenstein & Ron, 1999) such as disabilities and chronic conditions (Jasinski & Dietz, 2003) and may be more socially isolated (Mouton, 2003; Penhale, 1999). Both the dependency theory and caregiver stress model suggest that factors associated with old age and frailty are associated with increase risk of abuse (Miller-Perrin & Perrin, 1997). Furthermore, there may be cohort or other generational effects that result in older women accepting a submissive gender role and viewing abuse as a common and a private matter. Likewise, older women may be less aware of services and their

legal rights due to lower education levels who may be more financially dependent (Zink et al., 2003).

3: METHODOLOGY

This chapter provides an in-depth discussion on the data source from the General Social Survey (GSS), operational definitions and measurement of the risk and protective factors associated with IPV. In addition, this chapter will discuss the analytical strategy and the design of the study.

3.1 Data Source

The national Microdata Files of The General Social Survey (GSS) on Victimization 1999 (cycle 13) and 2004 (cycle 18) are pooled together for the purpose of this study. The combined use of the GSS datasets provide sufficient sample size in order to compare factors associated with IPV among mid-and-old age adults.

Since both cycles have focused on spousal violence and have similar measures, it is possible to pool the samples. The underlying assumption of using the pooled data is that each survey is collected from the same basic population of males and females who are 15 years and older in the 10 provinces of Canada (Statistic Canada, 2005b). In other words, the factors affecting IPV are similar and expected to remain stable across the samples. Furthermore, there should not be any major discrepancies between the samples as the data are collected using similar methods of recruitment and data collection, such as Random Digit Dialing sample, stratification, use of same reference period (i.e. past 5 years) and have

similar overall response rates (Statistic Canada, 2005b). Moreover, the definition of assault, in cycles 13 and 18, is consistent with the Canadian criminal code definition of spousal abuse. Given the similarities, Statistic Canada has examined both cycles, item-by-item, for the possibility of pooled data analysis. The risk and protective factors identified for this study are, therefore, selected based on their compatibility.

Although the datasets were collected 5-years apart, it is conceivable that one respondent could be in both cycles. However, the chance of overlap has been empirically confirmed as being very low (Wendt, 2007). The assumption of non-overlapping data is important in the pooling of two independent datasets. However, despite the comparable data, some small differences exist. For example, compared to GSS 1999, the older adults (60 and over) in GSS 2004 are older, more educated, less likely to have a disability and less likely to be an immigrant (Poole & Rietschlin, 2008). Although these factors are not expected to have a large influence on the overall sample or analysis, some cautions are warranted for the interpretation of the results.

There are two ways to combine the GSS 1999 (cycle 13) and GSS 2004 (cycle 18). First, the separate approach computes separate estimates for each cycle before combining them with a weighted average. Second, the pooled approach combines the data before adjusting the survey weights (Thomas, 2006; Wendt, 2007). While both approaches will lead to unbiased population estimates, they could also lead to different estimates with different interpretations (Wendt, 2007). Consultations with Statistic Canada as well as a review of its internal

documents by Michael Wendt (2007), Isabelle Marchand (2007) and Steven Thomas (2006) have provided directions for the purpose of this study.

This study uses a pooled approach to calculate the regression parameters. A desirable option with this approach is the rescaling of weights by a function of variances. This is accomplished by applying the same calculated α values to the original sampling weights for cycle 13 and 18 separately before combining the original datasets (Thomas, 2006). This pooled approach has the advantage over the separate approach because the new calculated weights can be used for multiple regression analyses to determine the differences in risk and protective factors for IPV among mid-and-old age adults.

3.2 Operational Definitions

3.2.1 Operationalization of Research Variables

For the purpose of this study, the following operations will be utilized for the examination and the analysis of IPV among mid-and-old age intimate partners. The GSS defined partner as “current spouse” includes legally married and common-law partners. The study examines two age groups: mid-age and older partners. Older adults are defined as 60 years and over, while middle-age adults are defined as people who are between the ages 45 and 59 years.

Due to the vast diversity of the older population, different age cut-offs for older adults are used in different parts of the world. However, in general, most research in North America and Europe tends to define older persons as 60 or 65 years and older. This study uses the standard from the United Nations to

describe older persons as 60 years and older (WHO, 2002b). Furthermore, due to the sensitive nature of this research, especially for older adults, and the low self-reported rates of abuse, the cut-off age of 60 can provide a larger sample of abused elderly.

During the GSS data collection phase, respondents were asked to recall events of emotional, financial, physical and sexual abuse, as well as to respond to statements describing the characteristics of their current spouses. The GSS has categorized abuse into two categories: emotional/financial abuse and physical/sexual abuse. For the purpose of the study, abuse is recoded into a dichotomous variable of "1" if the respondent said yes to any one of the items listed for each types of abuse asked in the GSS and "0" if the respondent said no (Table 1).

Table 1 Operational definitions of emotional, financial, physical and sexual abuse in the 1999 and 2004 General Social survey

Emotional Abuse	Does the following statement describe your partner/previous partner: • tried to limit your contact with family or friends. • put you down or called you names to make you feel bad. • jealous and didn't want you to talk to other men/women. • harmed, or threatened to harm, someone close to you. • demanded to know who you were with and where you were at all times.
Financial Abuse	Does the following statement describe your partner/previous partner: • damaged or destroyed your possessions or property. • prevented you from knowing about or having access to the family income, even if you asked.
Physical Abuse	During the past 5 years, has your current/previous partner: • threatened to hit you with his/her fist or anything else that could have hurt you? • threw anything at you that could have hurt you? • pushed, grabbed, or shoved you in a way that could have hurt you?

	• slapped you? • kicked you, bite you, or hit you with his/her fist? • hit you with something that could have hurt you? (other than fist) • beat you? • choked you? • threatened to use a gun or knife on you.
Sexual Abuse	During the past 5 years, has your current/previous partner: • forced you into any unwanted sexual activity, by threatening you, holding you down, or hurting you in some way?

3.2.2 Operationalizing the risk and protective factors of IPV

The following are the risk and protective factors common to the 1999 GSS and 2004 GSS. These factors are categorized into personal characteristics and risk factors, protective factors, relationship factors and environmental factors. It is necessary to employ codings that are identical across the pooled datasets. The percentages for all variables are shown in Table 5, divided by mid-and-older age persons.

3.2.2.1 Personal Characteristics and Risk Factors

In the GSS datasets, age of the respondents is coded into a five-year age categorical variable. This study collapses those who are between the ages of 45 and 59 years into the mid-age group and those who are 60 years and over into the older age group. Personal risk factors such as fragility can manifest itself in several ways, including disability, poor health and dependency on medication. Disability is recoded into a dichotomous variable with “1” as yes (aggregated responses of sometimes/often) and “0” as no if respondents reported no difficulty in hearing, seeing, communicating, walking and climbing stairs as well as having

no impairments in performing ADLs. Health status is recoded into a dichotomous variable with “1” as positive (aggregated responses of excellent/very good/good) and “0” as negative (aggregated responses of fair/poor) health. Finally, to measure dependency on medication, the dichotomous variable is recoded into “1” as yes for those respondents who have used medication to help them to sleep, calm or deal with depression and “0” as no for those who did not use any medication.

3.2.2.2 Protective Factors

There are limited items common to both surveys that measured protective factors. Examples of protection against victimization include taking a self-defense course, carrying something for defense and obtaining a dog. In order to examine the differences in the probability of being abused, the respondents who have said “yes” to any of the items listed in Table 2 is coded into a dichotomous variable as “1” and “0” for those who did not engaged in any protective activities.

Table 2 Operational protective factors in the 1999 and 2004 General Social Survey

Protective Factors	Have you done anything to protect yourself: • changed your routine, activities, or avoided certain places? • installed new locks or security bars? • installed burglar alarms or motion detector lights? • taken a self defense course? • changed your phone number? • obtained a dog? • obtained a gun? • changed residence or moved? • carry something to defend yourself or to alert other people? • lock the car doors for personal safety? • check back seat for intruders? • plan route with safety in mind? • stay at home at night?

3.2.2.3 Relationship Factors

To understand how spousal age differences influence the prevalence of IPV, spouses' age differences are collapsed into the following seven categories: (1) one to five years younger than spouse; (2) six to ten years younger than spouse; (3) 11 or more years younger than spouse; (4) one to five years older than spouse; (5) six to ten years older than spouse; (6) 11 or more years older than spouse; and (7) those who are about the same age as their spouses (i.e., less than 1 year).

Furthermore, the study examines the dependency in the relationship between the respondents and the potential abusers. Given that several studies have examined relative income contribution, education and employment status between the individuals and their spouses (Cubbins & Vannoy, 2005; Miller, 2006; Stickley et al., 2008b), the study measures spousal dependency by examining the amount of contribution to household income.

Contribution to household income is derived from subtracting the total household income with the total personal income of the respondents. The result of the subtraction is recoded into three categories: (1) those who contributed less than half (<50%) of household income; (2) those who have contributed more than half (>50%); and (3) those who contribute about the same to household income. Differences in education attainment between respondents and their spouses are also examined. The difference in education attainment between spouses is recoded into three categories: (1) No education difference; (2) smaller education difference; and (3) larger education difference reflecting two and more grade level

difference (e.g. no school/elementary school versus post-secondary/graduate). Finally, to examine the spousal alcohol consumption, based on the available data from the GSS, spouses' alcohol consumption is collapsed into a dichotomous variable with "1" as drinking more than five drinks in one occasion and "2" as drinking less than five drinks in one occasion.

3.2.2.4 Environmental Factors

The environmental factors examined in the study are region, community size and social isolation. The GSS provided a categorical variable for the measure of region and coded respondents into Ontario, Atlantic, Quebec, Prairie and BC to identify people living across the country. In terms of community size, based on the location of the place of residence, the GSS categorized people as living in a rural area if the population concentration is less than 1,000 and the population density is lower than 400 per square kilometre. Otherwise respondents are categorized into urban areas.

Several measures are used to examine social isolation. First, the study classifies respondents as socially isolated and recoded them into a dichotomous variable with "0" for no if they participated in outside activities once or fewer times in a month and "1" for yes if they participated in outside activities twice or more. This classification is similar to the research conducted by Poole and Rietschlin (2008) to examine spousal abuse among older adults. The outside activities measured in this study include going out at night to a restaurant, theatre and visiting relatives and friends (Table 3). Furthermore, since social isolation is related to the prevalence of criminal activity in the community, the study included

an examination of respondents' perceptions of crime in their neighbourhood compared to other areas in Canada. The GSS coded perceptions of crime into three categories: (1) Higher amount of crime; (2) About the same; and (3) Lower amount of crime.

Table 3 Operational definition of Social Isolation on participation in Outside Activities

Participation in Outside Activities	How many times a month do you go out at night to: • work, class, meetings, volunteer • restaurant, movies, theatre • bars or pubs • for sports, exercise or recreation • shop • visit relatives or friends in their homes • casinos or bingos

3.3 Analytic Strategy

Descriptive bivariate analyses are used to examine the difference in IPV across age groups for emotional/financial and physical/sexual abuse. Furthermore, logistic multivariate regressions are used to examine the predictors of IPV among mid-and-older partners.

Logistic regression estimates the probability of abuse occurring as a function of a set of explanatory predictor variables (see Table 4). The technique allows the examination of the relationship between probability of abuse and each explanatory predictor variable while controlling for all other specified variables. More specifically, the logistic model for regressing a binary (or dichotomous) dependent variable on a set of independent variables (x_1 to x_n) can be expressed as follows:

$$\ln\left(\frac{\pi_i}{1-\pi_i}\right) = \alpha + \boldsymbol{\beta}'\mathbf{x}_i \qquad \left(\boldsymbol{\beta}'\mathbf{x}_i = \beta_1 x_{i1} + \ldots + \beta_n x_{in}\right) \qquad (1) \text{ and}$$

$$\frac{\pi_i}{1-\pi_i} = e^{\alpha+\boldsymbol{\beta}'\mathbf{x}_i} \qquad (2)$$

where π_i is the probability of being abused for individual *i*. The term π_i / (1 – π_i) is called the odds, which is a ratio of probabilities of being abused over the probability of not being abused. In equation (1), the logarithm of the odds is a function of a constant (α) and a linear combination of predictor factors (βx_i), such as disability and health status, where the sign of the coefficient (β) affecting a given variable indicates whether the log odds increases or decreases as this variable increases, and its magnitude indicates the amplitude of the variation. In other words, the risk of abuse increases if β has a positive sign. The constant α can be thought of as the parameter corresponding to the overall probability of experiencing abuse when there are no other explanatory variables in the model. Since the model of the study includes dummy variables, the constant will corresponds to the probability of experiencing abuse for the reference group.

Results of logistic regression are usually presented in terms of odds, as in equation (2). In this form, e^{β} is interpreted as the multiplicative effect of a given variable on the odds of experiencing abuse. Data on emotional/financial abuse among older adults, for example, show 488 cases experiencing abuse versus 6, 483 cases not experiencing abuse. The odds of being a victim are thus 488/6, 483 = .08. One would interpret these odds to mean that seniors are, overall, one-twelve (.08 = 1/12) as likely to be abused as they are not to be abused. The log odds, in the case, is -2.526. Since, most research do not report log odds or logits,

this value is often expressed as an exponential function of x_i. For example, if the estimated coefficient of a given independent variable were 0.5, then one would conclude that a one-unit increase in that variable multiplies the odds of being a victim by $e^{0.5}$ ($\approx$ 1.65) would be 0.132 (1.65 X .08). In other words, e^{β} is an odds ratio.

In terms of hypothesis testing, evidence of similarity and dissimilarity between IPV among mid-and-old age adults will be done comparing changes in the strength of association (odds ratio), direction, and whether the associations attain (or lose) statistical significance.

3.4 Design of the Study

There are three models for the multivariate analysis (Table 4). In model 1, personal characteristics, risk factors and protective factors of the respondents are examined, followed by model 2 that included the relationships factors such as spousal age differences, alcohol consumption, educational differences and income contribution. Finally, model 3 examined three environmental factors: region, community size and social isolation.

These three models are organized and constructed based on a number of rationales. First, the ecological framework proposed by Schiamberg and Gans (2000) purports that violence is the outcome of interactions among various ecological levels stemming from the individuals' predispositions to the larger environmental influences. Second, determinants of elder abuse are often classified according to four categories: (1) individuals' characteristics; (2)

perpetrators' characteristics; (3) the relationship between the abuser and the abused; and; (4) the environmental context that fosters or triggers the occurrence of violence (Anetzberger, 2000; Spencer & Gutman, 2008).

Furthermore, according to Anetzberger's (2000) model, elder abuse is primarily a function of the characteristics of the perpetrator and secondarily a function of the victims' characteristics. Since information on the perpetrators is limited and not available in the GSS, the relationship between the potential abuser and the abused is examined. Such examination is important especially within the context of IPV. Finally, the construction and sequence of the model presented in the study is not new to family violence research, similar models and sequence have been examined in a number of studies including Campbell et al. (2003), Frye (2007), Lee (2009) and Poole and Rietschlin (2008).

Table 4 Logistic Regression Model

Model 1: Personal characteristics, personal risk factors and protective factors	**Personal Characteristics and Risk Factors of the Respondents** **1. Sex** • Male (Reference) • Female **2. Visible Minority Status** • No (Reference) • Yes **3. Medication to sleep, calm or for depression** • Did not use medication (Reference) • Used medication **4. Disability** • No (Reference) • Yes **5. Health Status** • Fair or Poor (Reference) • Good to excellent **Protective Factors** **6. Have you done anything to protect yourself** • No (Reference) • Yes

Model 2: Relationship Factors	**1. Age difference** • No age difference (Reference) • Respondent is 1-5 years younger • Respondent is 6-10 years younger • Respondent is 11+ years younger • Respondent is 1-5 years older • Respondent is 6-10 years older • Respondent is 11+ years older **2. Partner drank** • Less than 5 drinks on a single occasion (Reference) • More than 5 drinks on a single occasion **3. Education differences** • No education difference (Reference) • Smaller education difference • Larger education difference **4. Respondent contribution to household income** • About the same (Reference) • At least 50% • Less than 50% **5. Partners' controlling behaviours** • Yes (Reference) • No
Model 3: Environmental factors, region, community size and social isolation	**Environmental Factors** **1. Region** • Ontario (Reference) • Atlantic • Quebec • Prairie • BC **2. Community size** • Urban (Reference) • Rural **Social Isolation** **3. Participation in Outside evening activities** • No (Reference) • Yes **4. Neighbourhood crime compared to other parts of Canada** • High crime (Reference) • About the same • Low crime

4: RESULTS

4.1 Descriptive Statistics of Pooled Data: Age Group Comparison

The descriptive results on the prevalence of IPV show several statistically significant differences between the two age groups. In particular mid-age adults experience higher prevalence of emotional/financial abuse (9.1%) than older adults (6.9) ($\chi^2 = 27.2$, df = 1, $p < .001$) as well as a higher prevalence of physical/sexual abuse (2.4%) compared to older adults (1.0%) ($\chi^2 = 53.9$, df = 1, $p < .001$). Furthermore, descriptive results on the risk and protective factors among mid-and-old age adults indicate some similarities and differences. The average age for the mid-age sample is 51.3 years (SD = 4.24) and 69.1 years (SD = 6.66) for the old-age sample. Table 5 shows the frequencies of all predictor variables separately for each age group. In addition, bivariate crosstabs were conducted to determine whether statistically significant differences exist between the two age groups.

Statistically significant differences are found at the bivariate level for sex, visible minority status, medication use, disability status, health status, spousal age difference, spouse/partner drinking habits, education difference between spouses, contribution to household income and participation in evening social activities. However, there are also a number of non-statistically significant

findings between the two age groups including the protective factors, region, community size and perception of neighbourhood crime.

Regarding personal characteristics, the results indicate that there are a slightly higher proportion of males in the older age group (54.9%) than the mid-age group (51.7%) (χ^2 = 17.3 df = 1, p < .001). There are a slightly lower proportion of visible minorities for the older age group (4.1%) than the mid-age group (9.1%) (χ^2 = 169.4 df = 1, p < .001). As expected, older adults are more likely to take medication (15.8%) than mid-age adults (13.2%) (χ^2 = 22.75, df = 1, p < .001); they are also more likely to report having a disability (36.7%) than mid-age adults (19.2%) (χ^2 = 647.58, df = 1, p < .001); and a greater proportion report having poor to fair health (23.8%) than mid-age adults (14.1%) (χ^2 = 259.05, df = 1, p < .001). In contrast, there were no statistically significant age groups differences in protective factors (χ^2 = 1.10, df = 1, N.S.). The majority of respondents, regardless of age, have participated in a number of activities that protected themselves from harm.

Table 5 Comparison of Risk and Protective Factors Among Mid and Older Married Adults – Descriptive Statistics (Pooled GSS 13 & 18)

Variables	**Mid-Age (n = 10, 342) (%)**	**Older Adults (n = 6, 971) (%)**	**Test Statistics**
Age (M, SD)	51.31 (SD = 4.24)	69.14 (SD = 6.96)	
Personal Characteristics			
Sex Male Female	 51.7 48.3	 54.9 45.1	 χ^2=17.32*** df=1
Visible Minority Status (%) No Yes	 90.9 9.1	 95.9 4.1	 χ^2=169.43*** df=1
Medication No Yes	 86.8 13.2	 84.2 15.8	 χ^2=22.75*** df=1

Disability			
No	80.8	63.3	χ^2=647.58***
Yes	19.2	36.7	df=1
Health Status			
Poor to Fair	14.1	23.8	χ^2=259.05***
Good to Excellent	85.9	76.2	df=1
Protective Factors			
No	12.9	12.3	χ^2=1.10
Yes	87.1	87.7	df=1
Relationship Factors			
Age Difference			
No age difference	12.9	14.4	χ^2=98.93***
Respondent is 1-5 years younger	30.3	27.7	df=6
Respondent is 6-10 years younger	7.6	6.9	
Respondent is 11+ years younger	2.6	1.5	
Respondent is 1-5 years older	33.0	32.4	
Respondent is 6-10 years older	10.1	11.2	
Respondent is 11+ years older	3.5	5.8	
Spouse/Partner drink			
>5 drinks in one occasion	97.9	99.2	χ^2=52.79***
<5 drinks in one occasion	2.1	0.8	df=1
Environmental Factors			
Education Difference			
No difference	61.5	56.0	χ^2=68.10***
Smaller educational difference	34.9	38.6	df=2
Bigger educational difference	3.6	5.4	Tau C= 0.06***
Respondent's Income Contribution			
About the same	8.7	7.7	χ^2=280.69***
<50%	41.6	54.4	df=2
>50%	49.7	37.8	
Region			
Ontario	37.8	39.4	χ^2=8.02
Quebec	24.5	23.5	df=4
Prairie region	16.0	15.4	
BC	13.4	14.0	
Atlantic	8.3	7.7	
Community Size			
Large urban centres (CMA/CA)	75.7	75.3	χ^2=0.44
Rural and Small Town (non-CMA/CA)	24.3	24.7	df=1
Participation In Social Activities			
No	3.1	12.6	χ^2=570.23***
Yes	96.9	87.4	df=1
Perception of Crime			
Higher	7.0	7.1	χ^2=0.93
About the same	27.7	28.2	df=2
Lower	65.4	64.6	Tau C= -0.01
Emotional/Financial Abuse			χ^2=27.21***
No	90.9	93.1	df=1
Yes	9.1	6.9	
Physical/Sexual Abuse			χ^2=53.85***
No	97.6	99.0	df=1
Yes	2.4	1.0	

Notes: *p<.05; **p<.01; ***p<.001; Both Chi square and Tau C were tabulated if the independent variable was ordinal.
Source: Statistics Canada, 1999 GSS Cycle 13 and 2004 GSS Cycle 18
Last amended: March 29, 2009

Bivariate analysis also indicates statistically significant differences between mid-and-old age adults. In terms of the age differences between spouses, the analysis indicates that respondents from the older age groups are more likely to be of similar age with their spouses (14%) than the respondents from the mid-age group (12.9%) (χ^2 = 98.93, df = 6, p < .001). Likewise, respondents from the older age groups are more likely to have a spouse who drinks more than five drinks in one occasion (99.2%) than the mid-age group (97.9%) (χ^2 = 52.79, df = 1, p < .001). In terms of the education differences between spouses, respondents from the older age group tend to have a wider education difference (43%) than the mid-age respondents (38.5%) (Tau C = .06, p < .001). Similarly, respondents from the older age group are more likely to contribute less than 50% to their household income (54.4%) than the mid-age respondents (41.6)(χ^2 = 280.69, df = 2, p < .001).

For environmental characteristics, there is one age group difference. Mid-age adults (96.9%) are more likely to participate in evening social activities than older adults (87.4%) (χ^2 = 570.23, df = 1, p < .001). There are no statistically significant age group differences for a number of variables including the region in which the respondents live (χ^2 = 8.02, df = 4, N.S.), the size of their community (χ^2 = .44, df = 1, N.S.), and their perception of crime in their neighbourhood (Tau C =-.01, N.S.).

4.2 Bivariate and Logistic Analysis

To answer the research questions and hypotheses on the comparative risk and protective factors across age groups for emotional/financial and physical/sexual abuse, this study conducted initial bivariate analyses to examine whether there are any within age group differences for the dependent variables and each of the predictor variables. Logistic regression analyses are subsequently used to examine the relationships between the explanatory risk and protective variables on the odds of reporting emotional/financial and physical/sexual abuse controlling for other independent variables. The bivariate and regression results are presented together for each type of abuse.

4.2.1 Results for Emotional/Financial Abuse

Both results from the bivariate and logistic regressions reveal similarities and differences in predictors for emotional/financial abuse. While there are many statistically significant associations with abuse for both age groups, there are some non-statistically significant findings that remain consistent across the analyses.

4.2.1.1 Bivariate for Emotional/Financial Abuse

Bivariate analysis was performed between the predictor variables and emotional/financial abuse separately by age group. We begin with similar associations using age group, followed by those that differ. The strength of association is not considered until the logistic regression analysis, due to the use of Chi Square. Table 6 shows the results of the bivariate analysis, indicating

some similarities in predicting abuse. Statistically significant associations with emotional/financial abuse for both age groups are medication usage for mid-age adults (χ^2 = 44.18, df = 1, p < .001) and older adults (χ^2 = 9.20, df = 1, p < .01), disability status for mid-age adults (χ^2 = 43.27, df = 1, p < .001) and older adults (χ^2 = 19.14, df = 1, p < .001), spousal age difference among mid-age (χ^2 = 18.68, df = 6, p < .01) and old-age respondents (χ^2 = 26.13, df = 6, p < .001), spousal drinking habits for mid-age adults (χ^2 = 38.04, df = 1, p < .001) and older adults (χ^2 = 19.34, df = 1, p < .001), respondent's household income contribution for mid-age adults (χ^2 = 13.39, df = 2, p < .01) and older adults (χ^2 = 26.67, df = 2, p < .001) and perception of crime in the neighbourhood for mid age adults ($T\alpha\upsilon$ c = -.2, P <.01) and older adults ($T\alpha\upsilon$ c = -.01, P <.05). In addition, results also indicated that the region in which the respondent lives is not associated with abuse for either age group.

In contrast, there are also differences in predictors of emotional/financial abuse for mid-and-older adults. In particular, for mid-age adults, there are statistically significant associations with abuse and sex (χ^2 = 8.62, df = 1, p < .01; men = 51.7% and women = 48.3%), visible minority (χ^2 = 40.91, df = 1, p < .001; visible minority = 9.1% and non-visible minority = 90.9%), health status (χ^2 = 30.84, df = 1, p < .001; poor to fair health = 14.1% and good to excellent health = 85.9%), protective factors (χ^2 = 14.57, df = 1, p < .001; yes = 87.1% and no = 12.9%), and spousal educational difference ($T\alpha\upsilon$ c = .01, p < .05; no education difference = 61.5%, smaller education difference = 34.9% and larger education

difference = 3.6%). However, for older adults, only two predictor variables are statistically significantly associated with abuse. These variables include, community size (χ^2 = 4.84, df = 1, p < .05; larger urban centres (CMA/CA = 75.3% and rural/small town (non-CMA/CA) = 24.7%) and participation in social activities (χ^2 = 14.37, df = 1, p < .001; yes = 87.4% and no = 12.6%). See Table 6 for those associations that are not statistically significant.

Table 6 Risk and Protective Factors for Emotional/Financial Abuse by Spouse/Partner Among Mid and Older Married Adults – Bivariate (Pooled GSS 13 & 18)

Variables	Mid-Age (45-59 years) Test Statistics	Older Adults (60+ years) Test Statistics
Sex	$\chi^2(1)= 8.62$**	$\chi^2(1)= 2.35$
Visible Minority	$\chi^2(1)= 40.91$***	$\chi^2(1)= 1.47$
Medication	$\chi^2(1)= 44.18$***	$\chi^2(1)= 9.20$**
Disability	$\chi^2(1)=43.27$***	$\chi^2(1)= 19.14$***
Health Status	$\chi^2(1)= 30.84$***	$\chi^2(1)= 2.51$
Protective factors	$\chi^2(1)= 14.57$***	$\chi^2(1)= 2.48$
Age difference	$\chi^2(6)= 18.68$**	$\chi^2(6)= 26.13$***
Spouse/Partner drink	$\chi^2(1)= 38.04$***	$\chi^2(1)= 19.34$***
Education difference	$\chi^2(2)= 7.20$* Tau C = 0.01*	$\chi^2(2)= 2.56$ Tau C = 0.33
Respondent's income contribution	$\chi^2(2)= 13.39$**	$\chi^2(2)= 26.67$***
Region	$\chi^2(4)= 1.60$	$\chi^2(4)= 1.58$
Community size	$\chi^2(1)= 2.45$	$\chi^2(1)= 4.84$*
Social Participation	$\chi^2(1)= 0.27$	$\chi^2(1)= 14.37$***
Perception of crime	$\chi^2(2)= 22.18$*** Tau C = -0.20**	$\chi^2(2)= 5.25$ Tau C = -0.01*

Notes: *p<.05; **p<.01; ***p<.001
Source: Statistics Canada, 1999 GSS Cycle 13 and 2004 GSS Cycle 18
Last amended: March 29, 2009

4.2.1.2 Logistic Regressions for Emotional/Financial Abuse

Table 7 shows the logistic regression results for emotional/financial abuse separately for the two age groups. Based on the final model, after controlling for all predictors, both similarities and differences still exist between IPV among mid-and-old age adults. Personal, relationship and environmental explanatory

predictors are statistically significantly associated with abuse. In order to evaluate whether similarities or differences exist between the age groups, a conservative approach has been used. First, if associations are statistically significant for one group, but not the other then a difference is supported. Second, if associations are statistically significant for both age groups, and if the 95% Confidence Intervals (CIs) of the odds ratios do not overlap with each other, then a difference is supported. All other conditions support similarities between age groups.

Table 7 Risk and Protective Factors for Emotional/Financial Abuse by Spouse/Partner Among Mid and Older Married Adults – Logistic Regressions (Pooled GSS 13 & 18)

Variables	Mid-Age (45-59 years)		Older Adults (60+ years)	
	β Value	**Exp(β) (95% CI)**	**β Value**	**Exp(β) (95% CI)**
Sex – female [a]	-0.25**	0.78 (0.65-0.93)	0.18 [NS]	1.20 (0.94-1.55)
Visible Minority - yes [b]	0.77***	2.17 (1.77-2.66)	0.43*	1.54 (1.00-2.37)
Medication – yes [c]	0.45***	1.57 (1.31-1.88)	0.30*	1.35 (1.06-1.72)
Disability – yes [d]	0.35***	1.42 (1.21-1.68)	0.40***	1.49 (1.23-1.81)
Health Status – good to excellent [e]	-0.36***	0.70 (0.58-0.84)	0.14 [NS]	1.15 (0.91-1.47)
Protective factors – yes [f]	0.44***	1.56 (1.23-1.98)	0.17 [NS]	1.18 (0.87-1.62)
Age difference –				
Respondent is 1-5 years younger [g]	0.07 [NS]	1.07 (0.84-1.37)	-0.24 [NS]	0.79 (0.57-1.09)
Respondent is 6-10 years younger	0.25 [NS]	1.29 (0.93-1.78)	0.28 [NS]	1.32 (0.87-2.01)
Respondent is 11+ years younger	0.55**	1.74 (1.14-2.65)	-0.29 [NS]	0.75 (0.30-1.89)
Respondent is 1-5 years older	0.16 [NS]	1.17 (0.93-1.49)	-0.003 [NS]	1.00 (0.73-1.36)
Respondent is 6-10 years older	-0.00 [NS]	1.00 (0.74-1.35)	0.32 [NS]	1.37 (0.95-1.99)
Respondent is 11+ years older	0.40*	1.49 (1.02-2.17)	0.58**	1.79 (1.18-2.71)
Spouse/Partner drink – >5 drinks in one occasion [h]	1.21***	3.35 (2.39-4.69)	1.42***	4.14 (2.18-7.86)
Education difference –				
(1) Smaller difference [i]	0.16*	1.17 (1.02-1.35)	-0.07 [NS]	0.93 (0.77-1.14)
(2) Bigger difference	-0.18 [NS]	0.83 (0.56-1.24)	-0.25 [NS]	1.29 (0.88-1.89)
Respondent's income contribution –				
<50% [j]	-0.23 [NS]	0.80 (0.62-1.03)	-0.09 [NS]	0.91 (0.63-1.32)
>50%	0.01 [NS]	1.01 (0.79-1.28)	0.37*	1.45 (0.99-2.11)
Region –				
Quebec [k]	0.18*	1.19 (1.00-1.42)	0.03 [NS]	1.03 (0.81-1.32)
Prairie region	0.07 [NS]	1.07 (0.87-1.31)	0.11 [NS]	1.11 (0.85-1.47)

BC	-0.12 NS	0.89	(0.71-1.10)	-0.03 NS	0.97	(0.72-1.30)
Atlantic	0.10 NS	1.11	(0.84-1.46)	-0.11 NS	0.90	(0.61-1.33)
Community size – Rural and Small Town (non-CMA/CA) [l]	-0.02 NS	0.98	(0.83-1.17)	0.27**	1.31	(1.06-1.62)
Social Participation – yes [m]	0.08 NS	1.08	(0.72-1.63)	0.52**	1.68	(1.17-2.39)
Perception of crime –						
About the same [n]	-0.36**	0.70	(0.54-0.90)	-0.23 NS	0.80	(0.56-1.14)
Lower	-0.46***	0.63	(0.50-0.80)	-0.39*	0.68	(0.48-0.95)
Model Chi-Square, df	249.01***, 25			121.46***, 25		
-2 log likelihood	6078.05			3394.48		

Notes: *p<.05; **p<.01; ***p<.001, [a] reference group: Male; [b] reference group: Non-Visible Minority; [c] reference group: No medication; [d] reference group: No disability; [e] reference group: fair to poor; [f] reference group: No protective factors; [g] reference group: No age difference; [h] reference group: Spouse/Partner drink <5 times in one occasion; [I] reference group: No education difference; [j] reference group: About the same; [k] reference group: Ontario; [l] reference group: Larger Urban Centres (CMA/Ca); [m] reference group: No social participation; [n] reference group: Higher

Source: Statistics Canada, 1999 GSS Cycle 13 and 2004 GSS Cycle 18

Last amended: March 29, 2009

For mid-age adults, there was a statistically significant association between visible minority status and emotional/financial abuse (O.R. = 2.17). There was also a statistically significant association with visible minority status and emotional/financial abuse for older adults (O.R. = 1.54). Thus, being a visible minority increased the odds of abuse. However, the odds ratios of the two associations do not fall outside the CIs range of each other. Similarly, there was a statistically significant association between taking medication and emotional/financial abuse for both mid-age adults (O.R. = 1.57) and older adults (O.R. = 1.35). Further examination of the CIs indicates that there is no difference in the strength of associations in predicting medication usage on IPV across the age groups. In term of the disability status, respondents who have disability are more likely to report an increased likelihood of experiencing abuse for mid-age adults (O.R. = 1.42) and older adults (O.R. = 1.49). Thus, disability status is equally likely to predict abuse for both age groups as the CIs fall within the range of each other.

Moreover, the logistic regression results indicate that when compared to no age difference among spouses, those respondents who are 11 years or older are more likely to experience abuse for mid-age adults (O.R. = 1.49) and older adults (O.R. = 1.79). When it comes to respondents being 11 and more years older than their spouses, examination of the CIs indicates that there is no difference in the strength of associations in predicting abuse for both age groups.

Spousal drinking habits are also statistically significantly associated with abuse. Compared to having a spouse who drank less than five drinks in one occasion, those who had five or more drinks in one-occasion increases the likelihood for emotional/financial abuse for mid-age adults (O.R. = 3.35) and older adults (O.R. = 4.14). While spousal drinking habits appear to have a stronger influence on the older age group, the odds ratio comparisons do not fall outside the CI range of each other. Finally, lower perception of crime in the neighbourhood was inversely associated with abuse for mid-age adults (O.R. = .63) and older adults (O.R. = 0.68). Since the CIs fall within the range of each other, living in a neighbourhood with lower perception of crime are equally likely to associate with lower likelihood of abuse for both age groups.

Despite similarities, there are also distinct differences between predictors and abuse among mid-and-old age adults. Results indicate many statistically significant findings associated with the mid-age adults but not for the older adults. The likelihood of reporting emotional/financial abuse decreases for females (O.R. = 0.78) among the mid-age sample. While there is an opposite effect for the older sample, sex is not statistically significantly associated with abuse. Similarly,

health status appears to be inversely associated with abuse for mid-age adults (O.R. = 0.70) only. Compared to poor and fair health, those respondents who rated their health as good and excellent are less likely to report abuse (O.R. = .70). Participation in activities that protect oneself from danger or harm is statistically significantly associated between mid-age adults (O.R. = 1.56) and the likelihood of abuse. Furthermore, the odds ratios for emotional/financial abuse increase for mid-age adults (O.R. = 1.74) who are 11 or more years younger than their spouse.

The odds ratios for abuse of those who reported some educational differences compared to no educational difference between spouses increases for mid-age adults (O.R. =1.17) but not for older adults. Compared to living in the Ontario region, the odds ratio of experiencing abuse increases for those who live in the Quebec region for mid-age adults (O.R. = 1.19). Finally, perception of crime appears to have a greater influence for mid-age adults only. The results from the logistic regression analysis has indicated that compared to higher perception of crime rate in the neighbourhood, those who reported similar rate of crime with the rest of the country are less likely to experience abuse (O.R. = 0.70).

There are also predictors that are only associated with the older population. The odds ratios of reporting emotional/financial abuse for older adults increase for those who contributed more than 50% of their household income (O.R. = 1.45). Similarly, when compared to living in larger urban centres, the odds of reporting abuse increased for those living in rural and smaller towns

(O.R. = 1.31). Finally, participation in evening social activities appears to have an adverse effect on older adults. The likelihood of experiencing emotional/financial abuse is higher for those who participated in social activities (O.R. = 1.68) than those who do not.

4.2.2 Results for Physical/Sexual Abuse

In many ways, the results from bivariate and logistic regressions for physical/sexual abuse mirror the results for emotional/financial abuse. In general, results for physical/sexual abuse have indicated several salient predictors for each of the age groups. The similarities and differences found in the study reflect the complex nature of IPV.

4.2.2.1 Bivariate for Physical/Sexual Abuse

Table 8 shows the results of predictors that are associated with physical/sexual abuse across the two age groups. For example, physical/sexual abuse is statistically significantly associated with the use of medication for both mid-age (χ^2 = 28.49, df = 1, p < .001) and older adults (χ^2 = 6.45, df = 1, p < .01); disability status for mid-age (χ^2 = 26.47, df = 1, p < .001) and older adults (χ^2 = 12.95, df = 1, p < .001); protective factors for mid-age (χ^2 = 11.90, df = 1, p < .001) and older adults (χ^2 = 5.12, df = 1, p < .05); spousal age difference for mid-age (χ^2 = 15.89, df = 1, p < .01) and older adults (χ^2 = 14.53, df = 1, p < .05); spousal drinking habits for mid-age (χ^2 = 38.41, df = 1, p < .001) and older adults (χ^2 = 19.51, df = 1, p < .001) and the perception of crime for mid-age (χ^2 = 27.95, df = 1, p < .001) and older adults (χ^2 = 8.66, df = 1, p < .01).

Table 8 Risk and Protective Factors for Physical/Sexual Abuse by Spouse/Partner Among Mid and Older Married Adults – Bivariate (Pooled GSS 13 & 18)

Variables	Mid-Age (45-59 years)	Older Adults (60+ years)
	Test Statistics	**Test Statistics**
Sex	$\chi^2(1) = 0.09$	$\chi^2(1) = 2.40$
Visible Minority	$\chi^2(1) = 2.66$	$\chi^2(1) = 0.25$
Medication	$\chi^2(1) = 28.49$***	$\chi^2(1) = 6.45$**
Disability	$\chi^2(1) = 26.47$***	$\chi^2(1) = 12.95$***
Health Status	$\chi^2(1) = 9.94$**	$\chi^2(1) = 1.80$
Protective factors	$\chi^2(1) = 11.90$***	$\chi^2(1) = 5.12$*
Age difference	$\chi^2(6) = 15.89$**	$\chi^2(6) = 14.53$*
Spouse/Partner drink	$\chi^2(1) = 38.41$***	$\chi^2(1) = 19.51$***
Education difference	$\chi^2(2) = 1.02$ Tau C=0.002	$\chi^2(2) = 1.50$ Tau C=-0.003
Respondent's income contribution	$\chi^2(2) = 4.77$	$\chi^2(2) = 3.42$
Region	$\chi^2(4) = 14.93$**	$\chi^2(4) = 3.28$
Community size	$\chi^2(1) = 0.15$	$\chi^2(1) = 0.00$
Social Participation	$\chi^2(1) = 0.52$	$\chi^2(1) = 5.40$*
Perception of crime	$\chi^2(2) = 27.95$*** Tau C=-0.01***	$\chi^2(2) = 8.66$** Tau C=-0.003

Notes: *p<.05; **p<.01; ***p<.001
Source: Statistics Canada, 1999 GSS Cycle 13 and 2004 GSS Cycle 18
Last amended: March 29, 2009

Results from the bivariate analysis have also found a number of predictors not associated with abuse for both age groups. These predictors include: sex, visible minority status, spousal education difference, respondent's contribution to household incomes and community size. Further analysis did find statistically significant differences for physical/sexual abuse for each individual age group. For mid-age adults, health status is associated with abuse ($\chi^2 = 9.94$, df = 1, $p < .01$; poor to fair health = 14.1% and good to excellent health = 85.9%), respondent's contribution to household income (as well as the region in which the respondents live ($\chi^2 = 14.93$, $p < .01$; Ontario = 37.8%, Quebec = 24.5%, Prairie region = 16.0%, BC = 13.4% and Atlantic = 8.2%). In contrast, for older adults, social participation in evening activities is found to be associated with

experiencing physical/sexual abuse (χ^2 = 5.40, df = 1, p < .05; yes = 87.4% and no = 12.6%).

4.2.2.2 Logistic regressions for Physical/Sexual Abuse

Table 9 shows the results of the logistic regression on physical/sexual abuse. Similar to the bivariate findings, disability status, spousal drinking habits and the perception of neighbourhood crime are statistically significantly associated with both mid-and-old age adults. Furthermore, all the CIs fall within the CIs ranges of each other indicating that they are not statistically dissimilar in predicting physical/sexual abuse.

Table 9 Risk and Protective Factors for Physical/Sexual Abuse by Spouse/Partner Among Mid and Older Married Adults – Logistic Regressions (Pooled GSS 13 & 18)

Variables	Mid-Age (45-59 years)		Older Adults (60+ years)	
	β Value	**Exp(β) (95% CI)**	**β Value**	**Exp(β) (95% CI)**
Sex – female [a]	0.17 NS	1.18 (0.85-1.64)	1.04**	2.83 (1.48-5.37)
Visible Minority - yes [b]	-0.42 NS	0.66 (0.39-1.11)	-0.05 NS	0.96 (0.25-3.62)
Medication – yes [c]	0.55***	1.73 (1.26-2.37)	0.50 NS	1.65 (0.94-2.92)
Disability – yes [d]	0.47**	1.59 (1.19-2.14)	0.81**	2.25 (1.33-3.81)
Health Status – good to excellent [e]	-0.27 NS	0.77 (0.54-1.08)	-0.41 NS	0.66 (0.38-1.17)
Protective factors – yes [f]	0.77**	2.16 (1.27-3.67)	0.88 NS	2.42 (0.79-7.39)
Age difference –				
Respondent is 1-5 years younger [g]	0.24 NS	1.28 (0.76-2.13)	-1.36***	0.26 (0.11-0.59)
Respondent is 6-10 years younger	0.44 NS	1.55 (0.82-2.93)	-0.31 NS	0.73 (0.30-1.83)
Respondent is 11+ years younger	0.43 NS	1.53 (0.66-3.55)	-1.07 NS	0.34 (0.03-4.07)
Respondent is 1-5 years older	0.58*	1.78 (1.09-2.93)	-0.62 NS	0.54 (0.25-1.14)
Respondent is 6-10 years older	0.67*	1.95 (1.08-3.51)	0.32 NS	1.38 (0.59-3.21)
Respondent is 11+ years older	1.20***	3.31 (1.69-6.46)	0.49 NS	1.63 (0.60-4.41)
Spouse/Partner drink – >5 drinks in one occasion [h]	1.62***	5.07 (3.19-8.08)	2.42***	11.24 (4.35-29.03)
Education difference –				
(1) Smaller difference [i]	0.08 NS	1.08 (0.83-1.41)	-0.30 NS	0.74 (0.44-1.24)
(2) Bigger difference	-0.19 NS	0.83 (0.39-1.76)	-1.05 NS	0.35 (0.08-1.65)
Respondent's income contribution –				
<50% [j]	-0.10 NS	0.90 (0.55-1.48)	-0.47 NS	0.63 (0.25-1.57)
>50%	0.28 NS	1.32 (0.82-2.14)	0.26 NS	1.29 (0.52-3.24)
Region –				
Quebec [k]	-0.32 NS	0.73 (0.50-1.06)	-0.03 NS	0.97 (0.53-1.80)
Prairie region	0.22 NS	1. 24 (0.87-1.79)	-0.21 NS	0.81 (0.39-1.70)

BC Atlantic	0.35 NS 0.45 NS	1.42 (0.98-2.04) 1.56 (0.99-2.47)	-0.27 NS -1.42 NS	0.77 (0.36-1.63) 0.24 (0.05-1.28)
Community size – Rural and Small Town (non-CMA/CA) [l]	-0.06 NS	0.94 (0.69-1.29)	0.07 NS	1.08 (0.60-1.93)
Social Participation – yes [m]	-0.39 NS	0.68 (0.35-1.32)	1.23*	3.41 (1.03-11.27)
Perception of crime – About the same [n] Lower	 -0.82*** -0.92***	 0.44 (0.30-0.66) 0.40 (0.28-0.57)	 -1.19** -0.94**	 0.30 (0.14-0.67) 0.39 (0.20-0.78)
Model Chi-Square, df	249.01***, 25		121.46***, 25	
-2 log likelihood	6078.05		3394.48	

Notes: *p<.05; **p<.01; ***p<.001, [a] reference group: Male; [b] reference group: Non-Visible Minority; [c] reference group: No medication; [d] reference group: No disability; [e] reference group: fair to poor; [f] reference group: No protective factors; [g] reference group: No age difference; [h] reference group: Spouse/Partner drink <5 times in one occasion; [i] reference group: No education difference; [j] reference group: About the same; [k] reference group: Ontario; [l] reference group: Larger Urban Centres (CMA/Ca); [m] reference group: No social participation; [n] reference group: About the same

Source: Statistics Canada, 1999 GSS Cycle 13 and 2004 GSS Cycle 18

Last amended: March 29, 2009

The likelihood of reporting physical/sexual abuse is higher for those who have a disability compared to respondents who do not have disability for both mid-age adults (O.R. = 1.59) and older adults (O.R. = 2.25). Spousal drinking habits and the likelihood of reporting abuse has been consistent in other findings. The results have also indicated that the likelihood of reporting abuse increases for mid-age adults (O.R. = 5.07) and older adults (O.R. = 11.24) when respondents' spouses had five or more drinks in one occasion. Although the CIs for both age groups overlapped each other, it appears that spousal drinking habits may have a stronger influence on abuse for older adults, given an odd ratio that is more than twice as large. The levels of crime perception in the neighbourhood have statistically significant associations with both age groups. Compared to higher perception of crime, respondents who reported a similar crime rate to the rest of the Canada are less likely to report abuse among mid-age adults (O.R. = .44) and older adults (O.R. = .30). Similarly, the odds ratio of experiencing abuse also decreases for mid-age adults (O.R. = .40) and older

adults (O.R. = .39) when respondents reported a lower level of neighbourhood crime. Results from the logistic regression also indicate that a number of predictor variables are not associated with abuse among either age group. Visible minority, health status, spousal education differences, household income contribution, region as well as community size are not statistically significantly associated with physical/sexual abuse.

In contrast, there are some differences in predicting abuse that are specific to each age group. Among the predictors for mid-age adults are medication usage, protective factors and age differences. The likelihood for abuse increase (O.R. = 1.73) for those who did take medication to sleep, calm or help ease depression compared to those who did not take medication. Similarly, the likelihood of experiencing physical/sexual abuse is higher (O.R. = 2.16) for those respondents who engage in protective activities that protected themselves from harm than those who do not. Finally, the odds of reporting physical/sexual abuse increase for those who are one to five years older (O.R. = 1.78), six to ten years older (O.R. = 1.95) and more eleven years older (O.R. = 3.31) compared to no age difference among spouses.

Several predictors of physical/sexual abuse are only associated with older adults: sex, age difference and social participation. The likelihood of reporting abuse is higher for females (O.R. = 2.83) than males, controlling for the other variables in the model. The odds ratio of reporting abuse decrease for those respondents who are one to five years younger than their spouses (O.R. = .26) compared to no age difference among spouses. Finally, participating in evening

social activities also appears to have an adverse effect for older adults. Participating in social activities increase the odds of reporting abuse (O.R. = 3.41) when compared to those who do not engage in evening social activities.

5: DISCUSSION

With the increase in older population a concomitant rise in all forms of elder abuse is expected (Fulmer, Paveza, Abraham & Fairchild, 2000). The United Nations' International Plan of Action on Aging (2002) has identified elder abuse as a human rights issue that requires urgent actions. While the problem of elder abuse is not often compared to spousal abuse, research has indicated that some elder abuse is spousal abuse grown old and that the abuse may be a continuation of harms that begin earlier in a relationship (Hotaling et al., 1988). In particular, research has indicated that 58% of elder abuse is perpetrated by the spouse (Pillemer & Finkelhor, 1988). While spousal abuse does not simply become elder abuse when the victim 'aged' into an older person, to date there have been fewer studies that examined IPV among mid-and-old age adults on the national level.

This study attempts to examine two broad research questions. First, the study examines the prevalence rate of emotional/financial and physical/sexual abuse among mid-and-old age adults. Second, the study examines how IPV at mid-age is different from IPV at older age. To address these research questions, bivariate analysis and logistic regressions are employed to determine which risk and protective explanatory factors are associated with each types of abuse for each age group.

Consistent with most research on IPV, this study found a higher prevalence of emotional/financial abuse than physical/sexual abuse (Mihorean, 2005). In particular, the prevalence rates of spousal abuse for mid-age adults ranged from 9.1% for emotional/financial abuse to 2.4% for physical/sexual abuse. The prevalence rates of elder abuse by intimate partner for older adults ranged from 6.9% for emotional/financial abuse to 1.0% for physical/sexual abuse.

The results of the study supported the two competing hypotheses indicating that there are both similarities and differences in risk factors for IPV among mid-and-old age adults. Regardless of age, the commonalities for the likelihood of experiencing emotional/financial abuse include (1) being members of visible minorities; (2) people who take medication to help them to sleep, calm or deal with depression; (3) persons with disabilities that hinder them from performing activities for daily living (ADL); (4) couples who have wide age differences with their spouses; (5) persons whose spouse drinks excessively on single occasions; and (6) finally those who perceived higher crime rate in their neighbourhood. Likewise, regardless of the age, physical/sexual abuse is associated with people having (1) disabilities such as difficulty in hearing, seeing, communicating, walking and climbing; as well as (2) spouses who have drinking problems; and (3) persons who perceive their neighbourhood with higher crime rate when compared to the crime rates in other Canadian communities.

In contrast, there are age group differences in predicting abuse. Such differences between mid-age and older adults indicate the diversity of IPV

research. Older adults are more likely to experience emotional/financial abuse if they have (1) contributed more than 50% to their household income; (2) live in rural and small town; and (3) if they have participated in a number of evening social activities such as going out to restaurant, theatre and visiting relatives and friends. The likelihood of experiencing physical/sexual abuse associated with older adults are (1) being older than their spouses; (2) taking medication and (3) those who engage in protective activities such as taking self-defense course and/or carrying something against victimization.

The following sections will discuss the findings of the study starting with the commonalities of IPV across the two age groups followed by a discussion on the predictor variables associated with older adults in each type of abuse. Linkages to the macro and micro theories as well as other research on domestic violence will also be discussed with the findings of this study.

5.1 Commonalities of IPV

The commonalities of explanatory factors for all types of abuse are consistent with the literature. For example, the study has found that regardless of age group, having a disability or a long term physical, mental or other health problem that presents difficulty in hearing, seeing, communicating, walking, climbing stairs, bending and learning increases the odds of reporting emotional/financial and physical/sexual abuse. Indeed, having a disability and/or functional mobility problem has been found associated with IPV as well as other types of domestic violence (Jasinski & Dietz, 2003). In a research study examining abuse among older women, it was found that when a woman is

functionally independent, the risk for abuse would resembles those of IPV, however, when a woman is functionally dependent (i.e. having a disability) the risk factors would resemble caregiver abuse or neglect (Mouton et al., 2004).

The situation stress model or caregiver stress model is one of most widely used models to explain abuse and neglect (Hampton et al., 1993). This model can help to understand the associations between disability status and the occurrence of emotional/financial and physical/sexual abuse across different age groups. According to this model, the burden and stress associated with caregiving can lead to aggression towards the patient. In a study that examined the relationship between dementia and elder abuse, those caregivers who had been providing many years of care for their parents, spouses or other relatives had higher burden and depression scores and reported abusive behaviours towards them (Coyne et al., 1993). Furthermore, the aggressive behaviours on the part of the patients suffering from mental problems may aggravate already stressed and overburden caregivers (Kosberg, 1988).

The topic of caregiving leading to abuse and neglect has been the subject of much attention. According to Ramsey-Klawsni's (2000) typologies of elder abuse offenders, the "overwhelmed offenders" may have started with good intention to provide care, however, as stress of caregiving becomes overwhelming they started to lash out against their victims. Furthermore, other family caregivers, such as the spouses, may also have good intentions but they may be inexperienced and may be "impaired offenders" who are themselves too frail and weak to provide adequate care (Kosberg, 1988; Ramsey-Klawsni, 2000).

Abuse and neglect arising from these typologies can help to explain the relationships between disability and abuse as well as to draw attention to the challenges facing older couples especially if they have to support each other when the other spouse is facing physical, mental or health problems.

Another commonality for all types of abuse for mid-and-older adults is the spouse's drinking problem. The abuse of alcohol is consistent with the literature or domestic violence (Campbell et al., 2003; Reinfret-Raynor et al., 2004), as well as the findings from the 1999 GSS on IPV (Bunge, 2000). Furthermore, perpetrators of domestic violence have been shown to have addiction problems with alcohol and drugs (Coker et al., 2000; Stickley et al., 2008b). Such characteristics are consistent with the psychopathology model that examines the traits of typical abusers (Hampton et al., 1993). It is possible that those who have been abusing alcohol have started at a younger age and as a result their aggressive tendency towards their victims may have also started at a younger age and continued into elder abuse.

The broader macrosocial environment as explained by the ecology of violence model (Schiamberg & Gans, 2000) may also help explain the prevalence of domestic violence. Using perception of crime as a proxy for social disorder, respondents who perceived a lower or similar level of crime in their neighbourhood, when compared to other Canadian neighbourhoods, are less likely to experience emotional/financial and physical/sexual abuse. This finding is supported by current literature on environmental risk factors such as the positive association between social disorder and IPV (Frye, 2007; Raghavan et al., 2006).

There are three additional explanatory variables that are associated only with emotional/financial abuse for mid-and-older adults but not with physical/sexual abuse. First, being a member of a visible minority increases the risk of experiencing abuse. A visible minority includes individuals who are not Aboriginal and non-Caucasian in race. Together they accounted for 13.3% of the Canadian population in 2001 (Statistics Canada, 2003). Despite the growing visible minority population, there has been little research and data available to examine ethno-cultural minorities in Canada, especially on immigrant visible minorities. Systemic barriers may prevent visible minority immigrants from finding suitable jobs creating tensions within the family. Furthermore, immigrant seniors who are also members of visible minorities may have a number of risk factors that place them at greater risk for abuse. Such factors may include language barriers, smaller social networks and greater dependency on others.

Second, regardless of age, respondents who take medications are more likely to report experiencing emotional/financial abuse. This can be interpreted in several ways. Since medication is a proxy for personal frailty, respondents who take more medications may be frailer than those who do not. Indeed, based on descriptive results, the study indicated that older adults are more likely to take medication than middle-age adults. Personal frailty may be an indication of greater dependency. Research has indicated that dependency on others due to disability and frailty may provoke the onset of abuse (Miller-Perrin & Perrin, 1997). Another way of interpreting the positive association between medication usage and abuse is that abused individuals may use medications as a response

to mask the negative effects of abuse. Research has indicated that substance abuse is higher among women who suffer from abuse and victimization. These women often turn to alcohol and other drugs to numb their pain (Osgood & Manetta, 2002). In addition, the use of alcohol to mask the effects of abuse may make the victims more susceptible to further abusive behaviours, since their ability to care or fend for themselves are also impaired (Kosberg, 1988).

Lastly, the age difference between the respondent and the spouse is associated with the prevalence of emotional/financial abuse for both age groups. In particular, if a respondent is 11 or more years older than the spouse, s/he is more likely to report abuse. This finding is consistent with IPV research showing that an age difference of more than 10 years apart is associated with abuse (Alderidge & Browne, 2003; Coker et al., 2000). The association of couples with wider age difference and abuse can be explained by personal frailty and dependency. Wider age difference, especially among older couples, is associated with mobility and health problems. Also if younger, it may influence caregiver stress leading to abuse due to lack of understanding of aging (Cazenave, 1979; Rennison & Rand, 2003).

5.2 Age Group Differences in IPV

This section will provide a discussion on the differences in predictors for each age groups starting with explanatory factors for emotional/financial and/or physical/sexual abuse associated first with mid-age adults and second with the older population.

5.2.1 IPV Among Mid-Age Adults

For middle-age adults, there are some explanatory variables that are associated with both emotional/financial and physical/sexual abuse. Consistent with most literature on family violence, people who are healthy and those who perceived living in relatively safe neighbourhood are less likely to report abuse. It is also found that compared to other regions in Canada, adults living in Quebec reported experiencing emotional/financial abuse at higher rates than Ontario. This may not be surprising since Quebec has the highest concentrations of older adults living in the country.

Furthermore, this study has found that males are more likely to report emotional/financial abuse. There are some studies that support this finding especially for financial abuse, where it is found that men are more likely to become victims of financial abuse or neglect (Pritchard, 2007). While most research has focused on women as the victims of IPV, there are a growing number of studies that also indicate that men are equally likely to be victims (Reeves et al., 2007). In particular, the social mores of masculinity may prevent men from revealing their vulnerabilities (Blundo & Bullington, 2007; Thompson, Buxton, Gough & Wahle, 2007). This is particularly true for older men who may accept traditional gender roles and remain stoic and in denial of any abusive situations (Kosberg, 1988). Such an explanation is consistent with the results of the study because we did not support an association between older men and emotional/financial abuse, only for middle-age men.

There are also a number of other explanatory variables associated with abuse for middle-age adults. For example, those who reported educational differences with their spouse are more likely to experience emotional/financial abuse. Since, educational attainment is often used as a proxy for socio-economic or employment status, therefore, differences in education attainment between spouses may suggest differences in power relations within marital relationships. Feminist theorists often explain abuse of women due to the imbalance of power making them more vulnerable to victimization and less likely to leave an abusive relationship (Crichton & Bonds, 1999; Edwards, 2009). In addition, consistent with earlier findings, spouses who have wider age differences are also more likely to report experiencing both types of abuse. Since wider age differences between spouses indicate different health needs, tensions may arise from imbalance social exchange as predicted by social exchange theory (Hampton et al., 1993) or stress and feeling of overburden from caregiving as explained by the situational stress model (Coyne et al., 1993; Litwin & Zoabi, 2004).

Participation in protective activities, such as taking self-defense class, installing new locks or carrying something to defend oneself from harm is associated with increase likelihood of experiencing emotional/financial and physical/sexual abuse. This can be interpreted as response to IPV, where respondents may be actively taking steps to protect oneself from further harm. More research is needed to examine the directionality of the actions and behaviours associated with victims of domestic violence.

5.2.2 IPV Among Older Adults

For older adults, there are a number of explanatory variables that are either associated with one or both types of emotional/financial and physical/sexual abuse. Such explanatory variables are unique to the older populations that may require further examination. Given the current and future increase in the older population, issues relating to the victimization and abuse of seniors are becoming an important social issue (McGechie, 2007). The findings from this study provide evidence that elder abuse by intimate partner is different from spousal abuse at mid-age. Consistent with current literature on the prevalence of elder abuse in Canada, this study has found that about 1% of seniors reported experiencing physical/sexual abuse while 7% of them experienced emotional/financial abuse. Based on the 2005 Census, these estimates correspond roughly to about 45,000 and 315,000 seniors respectively experiencing these types abuse (Statistics Canada, 2006).

There is one predictor of social participation that was associated with both emotional/financial and physical/sexual abuse among older adults. Participation in social evening activities is an important explanatory variable. The social evening activities is a proxy variable used by the GSS to assess social isolation. While most research such as Hampton et al. (1993) and Hotaling et al. (1988) have consistently found that social isolation is associated with an increased risk for many types of domestic violence, the results from the study shows that seniors who participated in more social activities, such as going out at night to

visit relatives or friends, or to restaurant, movies, theatres and casinos, are more likely to report experiencing both types of abuse.

There are several ways to interpret this finding. First, it is important to recognize the limitation of the GSS survey questionnaire. Participation in social evening activities may not be an appropriate measure to assess social isolation especially among the older population. It is not uncommon for many active older adults to stay at home in the evening due to various reasons such as difficulty seeing and driving at night or simply fearing victimization. Second, the regression analysis only indicates the odds ratios and likelihood of experiencing abuse while controlling for other extraneous variables. It does not indicate the sequence of the relationship. In other words, we are not sure whether the respondents are punished by their spouses for being away at night or that participation in evening activities is a coping response to escape from their abusers.

Third, participation in social activities also exposes older adults to social issues such as ageism, elder abuse and other forms of discrimination. Being more aware of such issues allows seniors to recognize and report the presence of emotional/financial and physical/sexual abuse. Therefore, rather than associating the negative influence of social activities with abuse, the findings from this study may indicate that social participation is a protective factor in helping seniors to recognize abuse. Such an interpretation is plausible since research on socially active immigrants and visible minority seniors also shows a higher prevalence of experiencing discrimination (Lai, 2009). More research is needed to examine the relationship between social activities and victimization.

There are two explanatory variables associated only with emotional/financial abuse for older adults. First, this the study found that the place of residence or the community size in which seniors reside have a considerable impact on victimization and abuse. In particular, it is found that seniors living in rural and small town (non CMA/CA) are more likely to report experiencing emotional/financial abuse. This finding is consistent with a recent study in Spain indicating a higher prevalence of psychological abuse in rural communities (Marmolejo, 2008). Furthermore, previous research has found that rural victims of domestic violence demonstrated higher rates of emotional abuse and physical abuse, while urban victims demonstrated higher rates of passive neglect (Dimah & Dimah, 2003). Given the hidden nature of IPV, this problem is further compounded by the low population density in the neighbourhood (Kosberg, 1988) and the lack of services. Moreover, there are many risk factors identified across the ecological model on IPV for older women living in rural areas. For example, geographical isolation, economic constraints, strong traditional gender expectations and roles are associated with increase risk for abuse (Teaster, Roberto, & Dugar, 2006).

Second, the study has also found that seniors who contribute more than 50% to their household income are more likely to experience emotional/financial abuse. Such a finding is consistent with existing literature on financial abuse and dependency. While some research has indicated that some victims are dependent on the abusers other research such as Wolf and Pillemer (1989) has found that abusers are more dependent on their victims in some ways. This is

particularly true for financial abuse where economic dependency can result in hostility towards the victims by their caregivers (Kosberg, 1988). Furthermore, previous research has found that males are more likely to experience financial abuse when compared to women (Comijs, Smit, Pot, Bouter, & Jonker, 1998). Although there is limited research in this area, it is speculated that the prevalence of financial abuse may be higher when we consider financial abuse perpetrated by adult children instead of a spouse.

Finally, there are also two other explanatory variables associated with physical/sexual abuse among older adults. First, consistent with the Canadian and other international research on violence against older women, this study also found that older women are more likely to report being victims of physical/sexual abuse than older men (Brzozowski, 2004; Rennison, 2001; Rinfret-Raynor et al., 2004; Tjaden & Thoennes, 2000). According to the feminist theoretical model, power relations between the victims and the abusers are important in the understanding of violence against women (Cricton & Bond Jr., 1999). Furthermore, feminist theorists explained that the central themes of feminism relate to the historical subjugation of women and the need to recognize existing gender inequalities in the society that marginalize women (Aitken & Griffin, 1996; Barnes, 1999; Edwards, 2009). For older women, as a result of a lifetime of discrimination, they are cumulatively more disadvantaged than their younger counterparts in acquiring knowledge and access to services and resources. Such disadvantages would place them more at risk for victimization and minimize the risk of leaving an abusive relationship (Kosberg, 1988; Zink et al., 2003).

Secondly, among the older age group, those who are one-to-five years younger than their spouses are less likely to experience physical/sexual abuse. Being younger, these older adults may be less frail and dependent on others to care for them. Closely associated with dependency theory, the social exchange theory explains that positive interactions between two parties are characterized by mutually beneficial exchange (Hampton et al., 1993). It is reasonable to assume that those couples that are between one-to-five years of age difference would share relatively similar health needs, therefore neither party would require any additional support from each other. However, in the case of larger age differences, as it was found earlier, the social exchange theory would predict a negative interaction. This would result from an imbalance of mutual exchange between the spouses and lower control and more powerlessness of the victims, making them more vulnerable to their caregiver's abuse triggered by psychological distress (Dong, Simon, & Gorbien, 2007; Hampton et al., 1993).

5.3 Conclusion

The discussion section has explored the commonalities of IPV among mid-and-older adults and provided evidence and some support for the first hypothesis indicating similarities in risk factors for IPV between both age groups. However, results from this study have also supported the second hypothesis, indicating that some risk factors are unique to the older populations which may intensify as a person ages leading to the onset of abuse. While some older women are long-standing victims of spousal abuse and have simply "grown old" into elder abuse (Phillips, 2000; Walsh et al., 2007), the findings from this study reveals that

certain risk factors, such as the level of household income contribution, being female, living in smaller communities coupled with increase frailty and disability, may increase the risk of abuse in older age. Such findings are also supported by other research, for example, it is found the majority of older women did not experience elder mistreatment prior to the age of 60 years (Ockleford et al., 2003). Furthermore, participation in social activities appears to be a protective factor since those who actively participate in evening social activities are more likely to recognize and report experiencing abuse. Finally, those older adults who are between one-to-five years younger than their spouses are less likely to experience victimization.

Although this cross-sectional research cannot effectively examine the progression of IPV across age groups, the results, nevertheless, point to the importance of examining risk and protective factors associated with each age group. The findings of this study also suggest a need for future extrapolating research and theories from the broader family violence literature to elder abuse research. As pointed out by other researchers, it is important to recognize the characteristics of the older population and the uniqueness of being old in relationships to patterns of family violence (Pillemer, 1986). Since several decades have past since the inception of the first national prevalence study on elder abuse, new research in this area is needed. Furthermore, the validity of extrapolating findings from family violence literature, in particular, spousal abuse to elder abuse research, has not been fully examined. This current study is the

first of its kind to compare IPV among various age groups on the national level, providing a starting point for future work.

5.4 Limitations

There are several limitations of the GSS that restrict the generalizability of the findings. First, although anonymity was ensured during the data collection phase, it is possible that the prevalence of IPV is underestimated. Domestic violence, especially among older adults, is still largely a hidden crime, therefore the findings of the pooled 1999 GSS (cycle 13) and 2004 GSS (cycle 18) may not truly reflect the prevalence of abuse. Due to the sensitivity of the issue, as well as the limited number of abuse cases any further analyses on the risk and protective factors are restricted.

Secondly, it may be possible that the questionnaire used by the GSS is not appropriate to capture the specific nuances of abuse and its risk factors. For example, only two items were used to assess the prevalence of financial abuse. These items (whether the potential abuser damages or destroys possession or property and whether s/he prevents the knowledge or access of family income) may not accurately measure the full spectrum of financial abuse. Furthermore, the GSS combination of emotional/financial abuse may not be appropriate because research has shown that emotional and financial abuse are different with specific sets of risk factors (Comijs et al., 1998). For the purpose of this study, additional logistic regressions were conducted separately to examine whether there was a difference in predicting emotional and financial abuse. No significant difference was found.

Moreover, the lack of context to assess abusive situations may not provide respondents with the necessary backgrounds to report abuse as respondents were simply asked to recall if an event occurred regardless of whether they perceived it as a form of abuse. Similarly, the explanatory variable identified in the questionnaire such as disability status did not delineate the specific types of disability: mental, psychological and/or physical. This lack of specification may influence the results of the study.

Thirdly, the GSS questionnaire on IPV did not specify the degree and intensity of the abuse. Such information is important in order to accurately measure IPV. Furthermore, more weight and attention should be given when the abuse results in hospitalization. Fourth, although it is speculated that a telephone-based interview is a valid alternative to in-person interview in identifying abuse and victimization, this type of telephone-based interview does not ensure true anonymity since the abuser may be sitting beside the respondent or monitoring the phone interview. Fifth, the survey on abuse relies on past memory in which respondents are asked to recall abusive experience from the past 12 months to five years. Given the long time gap between the abusive act and the interview, it is possible that information provided may not be accurate. Also memory retention may be more problematic for the older age group.

Finally, this study pooled two GSS datasets together in order to obtain a larger sample. Although the chances of the same respondents being in the two datasets are very unlikely it is still possible that a pooled dataset may not accurately represent the true population. Further, it is assumed that the same

basic factors that influence IPV has remain the same within the five-year gap between 1999 GSS and 2004 GSS.

5.5 Future Research

The findings of the study suggest a number of future research directions. First and foremost, in order to truly examine the extent and impact of elder abuse, there is a need for panel longitudinal data to examine elder abuse trajectories over time. Secondly, given the findings on the effects of social participation on elder abuse by intimate partners, more research is needed to examine the role of the social network, especially for older couples. While there is evidence that spouses do provide the most intense care when needed, it is reasonable to assume that married older adults are in the best situation to provide and receive care. However, research has also showed that the social networks among married persons are small (Barrett & Lynch, 1999). Having a smaller social network may prevent overburdened and stressed caregivers from receiving help. Therefore, a thorough examination of social isolation and network dynamics is important to prevent abuse.

Thirdly, future research should also include a gender-based analysis on IPV. Rather than using gender as a covariate in multiple regressions, research examining gender differences should conduct a separate analysis based on each gender. A gender-based analysis can provide more insights on abuse as men and women may differ in their tendency to report abuse or interpret it in different ways (Schafer, Caetano, & Clark, 2002). Furthermore, gender is a social construct that may connote an array of social roles and relationships, personality

traits, attitudes, behaviours, values and relative power. Understanding these interpretive contexts may help provide a better portrayal of abuse experienced by each gender, hence, qualitative research will be well suited to further examine these dimensions.

Although most research has focused on women as victims of elder abuse, many studies have found evidence of men as victims of domestic violence (Kosberg, 1988; Pillemer & Finkelhor 1989; Reeves et al., 2007). Future research should examine abuse of older men for at least two reasons. First, since abuse is about three times more common for those living with someone else, elderly men are more likely to be in this situation. Secondly, most men are older than their wives, resulting in them being more vulnerable to abuse (Pillemer & Finkelhor, 1988).

Although any older adult can be a potential victim, there are certain sub-groups and characteristics that make some of them more vulnerable to abuse and victimization. While a number of vulnerable and marginalized senior sub-groups have been identified, such as Aboriginal elders, ethno-racial minorities and immigrants, there is a general lack of research in estimating the prevalence of abuse among these sub-groups (Spencer & Gutman, 2008). The results of this study have provided a base for future investigation on ethnicity and victimization, since it was found that, regardless of age, visible minorities are more likely to report experiencing emotional/financial abuse.

Future research on ethno-racial sub-groups may be difficult due to the limited available data and the fact that abuse is more hidden in some groups.

Indeed, research conducted by Statistics Canada using the pooled GSS survey has concluded that the sample to examine abuse within older visible minority population is too small to conduct inferential analysis (Marchand, 2007). To date there are only two research studies examine abuse within the older Chinese Canadian population. These suggest a prevalence rate of 4.5% (Lai, in press) and identify “disrespect” as a specific form of cultural abuse (Tam & Neysmith, 2006). Much more work is needed in this area.

A recent expert roundtable on elder abuse in Canada identified a number of important research areas, including the need to involve older adults and employ qualitative studies to contextualize the victimization experience. Furthermore, there is a need to develop comprehensive definitions, psychometrically sound instruments and the need to examine the correlates of abuse using both risk and protective factors across various ecological levels: microsystem, mesosystem, exosystem, and macrosystem (Walsh, 2008).

5.6 Implications

A number of implications can be derived from this study. First and foremost, the results support the importance of abuse awareness campaigns and improving social networks among older adults. It is found that those who have participated in evening social activities are more likely to report experiencing abuse. With the emphasis on the social networks and awareness building, seniors can become more educated on abuse and are able to recognize cases of victimization.

Based on the ecological approach, the awareness campaign can be targeted at the broader level to the larger population through public service announcement (PSA). Such PSA is not uncommon and has been used in many countries including Canada and other parts of the world. Anecdotal evidence from these PSA seems to indicate its success. However, the findings from this study suggest that these awareness campaigns should also be targeted to visible minorities who are non-Anglophone or Francophone.

In addition, awareness campaign can be localized and targeted towards front line workers, nurses, doctors and other health practitioners and seniors advocacy groups to recognize and detect symptoms of victimization. Such campaigns can include training materials to identify methods to keep older IPV victims safe and offer assistance or referral to health agencies, emergency shelter and domestic violence advocates that provide services at local senior centers (Zink et al., 2006a).

Secondly, it is imperative to reach out to the most isolated seniors, especially those living in remote or rural areas. A recent study found that larger social networks among older couples could lead to larger supportive networks in providing tangible assistance (Stadnyk, Weeks, Keating & Swindle, 2009). Hence, community programs can be aimed to help foster social networks, for example, one study has found that building trust among neighbours is an important antecedent that can play a meditative role for social isolation, thus reducing the risk for victimization (Mullen & Donnermeyer, 1985).

Moreover, the findings of this study indicated that older adults living in rural areas are more likely to experience IPV. This might be attributed to the lack of specific services or lack of knowledge directed towards domestic violence. As such health and community services in these areas can be integrated into existing services and targeted to local community centers, shopping malls, clinics and grocery stores.

In addition, given that some older women may have been IPV victims for a long time, special attention should be dedicated to supporting them and recognizing their complex moral dilemmas imposed by their upbringing. These victims may chose to remain in abusive relationships because they had less opportunity to develop the skills for autonomy that resulted in poor self-image and low self-confidence (Zink et al., 2003). Therefore, interventions that recognize these unique challenges through patient counseling that include educating victims about available options and creating non-judgmental atmosphere to express their feelings and fears can be an effective approach to address IPV (Paris & Fain, 1995).

A study examining the reasons why women remain in abusive relationships across different age groups indicates that, while the reasons are the same regardless of age, they are magnified for older women as a result of aging, generational cohort, historical and cultural reasons (Zink et al., 2003). Furthermore, the services and support groups for IPV victims are catered towards younger women who have different life experiences. These shelters are often filled with children without special attentions to the needs of older victims (Zink et

al., 2003). Therefore, attention should also focus on best practices in applying interventions to the appropriate groups.

Thirdly, it is becoming clear that there are different risk factors of IPV for different age groups and perhaps different senior sub-populations (i.e. visible minorities, immigrant status, genders and Aboriginal). The “all hazards, one-size fits all” approach may not apply to abuse and victimization of older adults, which can have profound implications in the delivery of health and social services. To address elder abuse in the Chinese community, one study recommends using multi-service organizations to create programs that include case management, community outreach and education to increase the knowledge and willingness of the community to report elder abuse (Manigbas, 2002). Furthermore, given that some older women are longtime survivors of IPV, effective cross training and collaboration between domestic violence agencies and organizations that serve seniors are critical in addressing their unique needs (Zink et al., 2006a).

Such a multi-level approach is crucial to the development of effective service response to elder abuse. Multidisciplinary teams of experts from the field of aging, adult protective services, geriatric medicine, mental health, law enforcement and others can provide a dynamic and interactive forum to address and prevent IPV against older individuals (Nerenberg, 2000).

Lastly, at present there is a lack of interventions developed specifically for the prevention of IPV among older adults. In general, most interventions tend to be reactive in nature that focuses more on responding to elder abuse than prevention (Wyandt, 2004). The findings of the study indicate that spousal

caregiving may lead to the onset of caregiver stress or burden resulting in abusive behaviours.

To circumvent this tendency spousal respite care is recommended. In addition, previous research has found that adult children often provide care support to family members, therefore another recommendation may include enhanced workplace flexibility for middle-aged adult children to provide caregiving support to their parents and aging relatives (Stadnyk et al., 2009).

The advancement of elder abuse intervention and prevention depends on the continue interests in elder abuse research from the academic communities as well as the attentions from the public including practitioners, physicians, law-enforcements agencies and senior advocacy groups. The collaborations between these communities are crucial to ensure the safety and security of seniors that allow them to fully contribute to the society without fear of victimization. Such collaborations are the corner stones and prerequisites for an age friendly society.

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