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Domestic Homicide and Homicide-Suicide in the Older Population

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A thesis submitted in partial fulfillment of the requirements for the Master of Arts degree in
Psychology

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DOMESTIC HOMICIDE-SUICIDE IN THE OLDER POPULATION

Abstract

Extensive research has been conducted on domestic homicide in younger populations; however, very little is known about such incidents in the older population. It is vital that this gap in the literature be filled as Canada's older population has been increasing. Data for this study was provided by the Ontario Domestic Violence Death Review Committee. Ninety-two domestic homicide and suicide cases were examined to determine whether there were differences between younger age groups (30 to 50 years of age) and older age groups (55 years of age and older). Information was gathered on prominent characteristics and risk factors within cases in the older population. Results indicate that cases in the older population have significantly less risk factors present. Older perpetrators are more likely to commit suicide after the homicide, be depressed, have access to a firearm, and have less outside contact. The role of caregiver stress and illness within the couple's relationship is discussed and examined within the cases studied. This research offers several implications and recommendations for professional and public sectors, and highlights the importance of appropriate risk assessment strategies.

Keywords: domestic homicide, domestic homicide-suicide, older population, younger population, Domestic Violence Death Review Committee, risk factors, depression, illness, caregiver, risk assessment

Acknowledgements

I would like to express my deepest thanks to everyone who has supported me to make this thesis possible. First and foremost, thank you to Dr. Peter Jaffe for your indispensable patience, wisdom, and feedback. I am extremely thankful for the freedom and trust you gave me to explore on my own, but also the guidance when I needed it most. The passion and expertise you have shown towards ending violence against women is inspirational. I am immensely grateful for the opportunity to have you as my supervisor.

Thank you to Dr. Alan Leschied, Dr. Susan Rodger, and Dr. Jason Brown. You have all played an integral part in my research and development as a clinician and person. Your words of encouragement will always stick with me. I am honoured to have gotten to know each of you throughout my graduate studies.

The completion of this thesis would not have been possible without my family and friends. To my parents - you have provided me with unfailing support and have continuously believed in me even when I was questioning myself. I will never be able to put into words how much your constant patience and love has meant to me. Thank you to my partner and closest friends for your unfaltering support, humour, and dedication. Each and every one of you has shaped me to become the person I am today and the person I strive to be. Thank you.

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Introduction

Domestic violence is a global health problem, affecting millions of people worldwide (Black et al., 2011). Although domestic violence has been extensively studied within different populations and age groups, there has been a particular lack of research on older individuals'¹ experiences with such violence. Specifically, there is a gap in current research on the extreme act of domestic violence leading to death in the older population: domestic homicide. Domestic homicide and homicide-suicide has been quite commonly studied as a whole; however, attention needs to be given to such lethal violence affecting older Canadians. Overall, domestic homicide rates have been decreasing since the 1990s. However, rates have been increasing for older couples in particular over the past few decades (Brennan & Boyce, 2013). Moreover, as Canada's older population continues to grow, there is a need for understanding the unique risk factors of domestic homicide and homicide-suicide within this population. Such knowledge will work to enhance strategies currently used for the detection of risks and to suggest more specific preventative measures in such lethal violence.

Domestic Violence

Domestic violence is a profound societal concern, considered to be one of the most pervasive and traumatic family problems today (Roberts, 2007). Domestic violence can encompass a variety of abusive behaviours, from physical, sexual, and psychological violence, to financial abuse and neglect. Defined as abuse committed by a current or former spouse, common-law partner or dating partner, domestic violence has serious physical, emotional, and social consequences (World Health Organization, 2014). Almost 30% of women worldwide who

¹ Research definitions for "older population" vary, with some studies using over 65 years of age to characterize this population, whereas others use as young as 50. For the purposes of the current study, age 55 and older is used to define the older population.

have been in an intimate partner relationship have experienced physical or sexual violence at the hands of their partner (World Health Organization, 2014). In 2013, there were 90,300 incidents of domestic violence reported to Canadian police (Statistics Canada, 2015). Further, it is assumed that the majority of domestic violence incidents go unreported, with true rates being much higher (Statistics Canada, 2009). Research on such violence has consistently, year after year, shown a much higher prevalence of victims being female. In 2013, almost 80% of victims of police-reported domestic violence in Canada were female (Statistics Canada, 2015).

Domestic Violence in the Older Population

Family members are most often the perpetrators of violence against older individuals. In 2013, over 2,900 seniors were the victims of police-reported family violence in Canada (Statistics Canada, 2015). Along the same lines, the United States National Institute of Justice reported approximately one in 10 people over the age of 60 had experienced some form of abuse in 2009, and that almost 90% of those cases were committed by a family member (Stutts, 2014). Some studies have indicated that violence against seniors is often committed by a spouse (Edwards, 2012; Pillemer & Finkelhor, 1988), while other research has suggested that adult children are frequently the abuser (Ajdukovic et al., 2009; Clancy, McDaid, O'Neill, & O'Brien, 2011; Sinha, 2013).

Domestic violence in particular is often thought of as an issue impacting younger women. However, in reality, women of all ages experience such violence. In Canada in 2011, there were 2,792 individuals over the age of 55 who were victims of police-reported spousal violence. Specifically, there were 2,016 victims between the ages of 55 and 64, and 776 victims over the age of 65 (Sinha, 2013). Further, there were 1,184 victims of police-reported dating violence with individuals 55 years of age or older. When compared to other age groups, the older

population has the lowest rate of domestic violence. However, similar to younger age groups, a large number of older victims do not report the violence they experience. According to the results of the 2002 General Social Survey in Canada, only 46% of all violent incidents involving older individuals are reported to police (Brennan, 2012). In other words, domestic violence is likely a much more frequent issue for the older population than statistics suggest.

In line with the present research, domestic violence has been a commonly cited risk factor within domestic homicide cases. As such, it is vital that the violence that older individuals face in their relationships be explored further. It has been found that older women have different experiences with domestic violence than younger women. Older women are more likely to self-blame and feel powerless, report health conditions that may be related to the abuse, and have anxiety or depression (Fisher & Regan, 2006; Weeks & LeBlanc, 2011). Previous studies have also found victims to suffer from headaches, post-traumatic stress disorder, and chronic pain more often than individuals without experiences of such abuse (Campbell, 2002; Lachs, Williams, O'Brien, & Pillemer, 2002; Penhale, 2008). Domestic violence is typically not an isolated event. Instead, the abuse most often occurs over the lifespan of the relationship (Walsh, Ploeg, Lohfeld, Horne, MacMillan, & Lai, 2007). This finding leads to the possibility of further implications on the victim's health due to the cumulative effects of violence.

In order to gain a full understanding of this phenomenon, it is important to keep in mind the barriers that some older individuals face in their experiences of domestic violence. Older age is a transitional period. These individuals may experience changes in physical health, mental health, and social roles (Gilmour, 2012). As adults age, they can experience physical limitations, as well as changing roles in regards to being "empty-nesters" or losing independence by obtaining care through retirement homes (Stutts, 2014). It is important to recognize that older

women are at risk for abuse due to their greater vulnerability and “historical location” (Yon, Wister, Mitchell, & Gutman, 2014). Specifically, women in the older population have had different life experiences than younger women. They may have experienced a lifetime of oppression, have had less opportunities and more barriers, and, in turn, have accumulated fewer resources (Yon, et al., 2014; Zinc, Regan, Jacobson, & Pabst, 2003).

It has been proposed that the physical and mental impairments experienced by some older individuals increases their vulnerability to abuse, along with their ability to recognize and speak out about such violence (Brennan, 2012; Edwards, 2012; Weeks & LeBlanc, 2011). As such, this age group also tends to be more emotionally, physically, and financially dependent on the abuser (Beaulaurier, Seff, Newman, & Dunlop, 2007). Today’s older population was raised in a society where mental illness was stigmatized, experiencing domestic violence was considered a private matter, and help was not often sought out for these issues (Salari, 2007). As pointed out by Stutt (2014), the prevalence of ageism in our society leads to an “invisibility” of older people, allowing domestic abuse to happen in a much more isolated way. In other words, these barriers may make leaving such violence before it escalates to extreme severity, such as domestic homicide, even more difficult. With Canada’s aging population increasing, gaining awareness and understanding of domestic violence in the older population will only continue to grow in importance (Statistics Canada, 2015).

Domestic Homicide

At the most extreme end of domestic violence is domestic homicide. As defined by the Domestic Violence Death Review Committee (DVDRC), domestic homicide encompasses “all homicides that involve the death of a person, and/or his or her child(ren) committed by the person’s partner or ex-partner from an intimate relationship” (DVDRC, 2015). In Canada, there

were 62 solved domestic homicide cases in 2012 alone (Statistics Canada, 2012). There were more deaths in America in 2004 due to domestic homicide than there were deaths due to 25 months of war in Iraq (Roberts, 2009). Although domestic homicide encompasses both female and male victims, women consistently represent the highest proportion of domestic homicide cases. Moreover, women are more likely to be killed by an intimate partner than any other perpetrator (Goussinsky & Yassour-Borochowitz, 2012; Reckdenwald & Parker, 2010; Sinha, 2013).

Men who kill their intimate partner are generally seen as more conventional or normal than other criminals (i.e., holding esteemed jobs, having a wife and children). Unlike the risk factors often associated with homicide, many studies have found that these men often have healthy childhood experiences, high levels of education, are employed, have no substance abuse history, and have little to no criminal record (Dobash, Dobash, Cavanagh, & Lewis, 2004; Dobash, Dobash, Cavanagh, & Medina-Ariza, 2007). Overall, they are viewed as the typical “family man” and the homicide incident is seen as unpredictable or “out of the blue” (Dobash, Dobash, & Cavanagh, 2009). On the other hand, conflicting research has found that domestic homicide is strongly associated with the perpetrator’s lack of employment and education (Campbell et al., 2003). Further, these men are regularly noted to have a history of relationship issues. Particularly, domestic homicide perpetrators are more likely to have used violence against a female intimate partner than other homicide perpetrators (Dobash et al., 2009). In other words, although these men usually do not have a long-standing criminal record unlike other homicidal men, it appears as though they specialize in violence against women (Dobash et al., 2004).

Although some domestic homicide cases seem to be inexplicable or “out of the blue”, there is a vast amount of literature that has uncovered common characteristics in such cases.

Contextually, a history of domestic violence, separation, substance abuse, a step-child living in the home, the perpetrator's access to a firearm, and the women's attempts to leave the relationship are important risk factors for domestic homicide (e.g., Campbell et al., 2003; Dobash et al., 2004; Dobash et al., 2007; Farr, 2002; Salari & Sillito, 2016).

Of particular importance, domestic violence and separation are the most frequently cited risk factors for domestic homicide. Studies have found that between about 60-80% of domestic homicide cases involve physical abuse of the female by the male partner leading up to the incident, regardless of which partner is killed (Campbell et al., 2003; Dobash & Dobash, 2011; DVDRC, 2015; Farr, 2002; Sharps et al., 2001; Sinha, 2013). Domestic violence that increases in frequency or severity is especially concerning, as it is associated with an even higher domestic homicide risk (DVDRC, 2015; Juodis, Starzomski, Porter, & Woodworth, 2014). Moreover, domestic homicide risk has been found to increase exponentially when the couple is separated. In some cases, the risk for lethal violence was found to be nine times more likely between separated couples than intact relationships (e.g., Campbell et al., 2003; Cooper & Eaves, 1996; DVDRC, 2015; Johnson & Hotton, 2003; Sinha, 2013; Wilson & Daly, 1993). Although the beginning period of the separation holds the most risk, particularly the first three months (Dawson & Gartner, 1998), some men kill their ex-partner several years after their separation (Dobash et al., 2009). Threatening behaviours (i.e., threatening with a weapon or threatening to kill) and stalking by the perpetrator is also associated with an increased risk for domestic homicide (Campbell et al., 2003; DVDRC, 2015).

Common socio-demographic factors have been suggested in previous research as well. Specifically, greater age disparity between the couple and lower socioeconomic class can increase the risk for domestic homicide (Campbell et al., 2003; Dobash et al., 2004; Eke, Hilton,

Harris, Rice, & Houghton, 2011). Further, the type of relationship between the perpetrator and victim appears to have a significant impact on the lethality of abuse. Specifically, research has shown that cohabitation and dating, compared to marriage, is a risk factor in lethal violence (Johnson & Hotton, 2003). In one study, the rate of domestic homicide was eight times higher for women in cohabiting relationship than for married women (Wilson, Johnson, & Daly, 1995). As proposed by Dobash et al. (2007), this well-established characteristic of domestic homicide may be due to dating or cohabiting relationships involving less commitment and being less supported by family and friends, leading to fewer outside resources for the couple to deal with conflicts. On the other hand, such findings may be due to the characteristics of the couple. In particular, cohabitating or dating couples tend to be categorically different than married couples (i.e., younger and part of a lower socioeconomic class; Brownridge & Halli, 2002), which could account for the difference in lethal violence.

Psychologically, men who kill their intimate partner are more likely to be possessive and have a sense of ownership over their partner compared to men who use non-lethal violence. Further, they are likely to be severely jealous over their partner's new relationships or infidelity, whether the relationship is real or perceived (Dobash et al., 2007; Dobash & Dobash, 2011). Mental illness has been commonly studied in cases of domestic homicide. In a large scale study conducted by Oram, Flynn, Shaw, Appleby, & Howard (2013), 7% of domestic homicide perpetrators experienced symptoms of psychosis, while 13% experienced symptoms of depression at the time of the incident. Depression particularly has been identified as a risk factor in several studies, with rates of depression ranging from 17% to 75% within domestic homicide perpetrators (Buteau, Lesage, & Kiely, 1993; Dixon, Hamilton-Giachritsis, & Browne, 2008; DVDRC, 2015; Rosenbaum, 1990). Depressed perpetrators tend to be older and less likely to

have a history of problems with substance abuse and criminal convictions (Oram et al., 2013). Further, dementia has been noted as a potential risk factor in domestic homicide cases involving older perpetrators (Salari & Sillito, 2016).

Some studies have offered explanations for domestic homicide. Specifically, men who kill their partner are illustrated as highly controlling, using violence to enforce their own morals and punish transgressions from what they view as the “good wife” (Bograd, 1988, cited in Dobash & Dobash, 2011). Domestic homicide has also been described as occurring as a means for the perpetrator to maintain power and control over the victim when his usual methods of abuse are no longer working. The triggers for such violence typically involve the victim ending or threatening to end the relationship, leading to a possessive rage in the perpetrator. In turn, the use of physical, psychological, or sexual abuse will no longer work as a method to control the victim (Farr, 2002). Domestic homicide perpetrators typically lack empathy, minimize the impact of their violence, prescribe to beliefs that justify their actions, and blame the victim for their own demise (Cavanagh, Dobash, Dobash, & Lewis, 2001; Dobash & Dobash, 2011). These actions serve to rationalize and diminish responsibility for the use of violence. The common perception of domestic homicide being the unintentional product of violence that went out of control, or the “hand that slipped” has been consistently disproven (Goussinsky & Yassour-Borochowitz, 2012). Several studies have found domestic homicide to be largely premeditated and planned well in advance (e.g., Goetz, Shackelford, Romero, Kaighobadi, & Miner, 2008; Goussinsky & Yassour-Borochowitz, 2012).

To further understand the phenomenon of lethal violence perpetrated by a partner, four prototypes of domestic and family homicide have been developed. *Family-focused delusional killing* encompasses homicides that are sudden and unexpected, and caused by mental illness.

Specifically, the murder is a result of the perpetrator responding to hallucinations ordering them to kill a specific family member. *Elimination of the limit-setter* typically involved young males with a long-standing history of mental illness. These men are usually dependent on their families for a variety of support, and when these supports are cut-off or minimized, the “limit-setter” – typically the father – is murdered. *The overwhelming burden* characterizes homicides in which the perpetrator has taken on a caregiving role in which the victim is entirely dependent. Overall, these perpetrators generally had no history of mental illness and functioned well before their new role was taken on. Worn down by the responsibilities of caretaking, they experience extreme levels of depression that eventually lead to the murder of the dependent victim. Lastly, *till death do us part* encompasses homicides that involve older couples. Specifically, these couples are aging and entirely dependent on one another, with health problems, financial concerns, and other stressors. With depression developing in the perpetrator, these cases typically involve not only the murder of the victim but also the suicide of the perpetrator (Lewis, Scott, Baranoski, Buchanan, & Griffith, 1998).

Domestic Homicide-Suicide

Homicide of an intimate partner followed by suicide of the perpetrator is the most common form of homicide-suicide (Liem, 2010). Between 2001 and 2011, there were 344 reported homicide-suicide cases in Canada, with 46% of those cases involving a male killing his current or former spouse (Brennan & Boyce, 2013). Rates of domestic homicide-suicide have remained fairly stable over the past 40 years, and, in line with domestic homicide alone, perpetrators tend to be largely male (Eliason, 2009; Liem, 2010).

There has been a lack of consensus within research on the etiology of domestic homicide-suicide. Some consider the homicide to simply be a side effect of the suicide, where the decision

to end ones life precipitates the desire to take others along. In other words, the homicide is seen as an extended suicide of an intimate partner, a person which the perpetrator may consider to be an extension of ones self (Cooper & Eaves, 1996; Dawson, 2005). Alternatively, others view homicide-suicide as arising from a homicidal rage that in turn leads to suicide when the perpetrator realizes the consequences of their actions (Dawson, 2005; Liem & Roberts, 2009). Still others view homicide-suicide as a distinct act, completely separate from homicide or suicide alone (Eliason, 2009). What is well established, however, is that homicide-suicide encompasses unique characteristics.

Domestic homicide-suicide is largely represented by older male perpetrators, with rates being double for perpetrators 55 years of age and older versus younger homicide perpetrators (Banks, Crandall, Sklar, & Bauer, 2008; Belfrage & Rying, 2004; Dawson, 2005; Eliason, 2009; Liem, 2010). A history of substance abuse or the involvement of alcohol or drugs at the time of the incident is much less likely in domestic homicide-suicide cases. In fact, the use of substances in such cases has been shown to be about half that found in homicide alone (Belfrage & Rying, 2004; Bourget, Gagne, & Moamai, 2000; Eliason, 2009; Malphurs & Cohen, 2005). Perpetrators of domestic homicide-suicide typically have low rates of criminal behaviour, are employed, and have access to a firearm (Banks et al., 2008; Barber et al., 2008; Belfrage & Rying, 2004; Cooper & Eaves, 1996; Dawson, 2005). Further, the perpetrator's threats to commit suicide are an important risk factor in domestic homicide-suicide (Koziol-McLain et al., 2006; Liem & Roberts, 2009). As mentioned previously, domestic homicide has been found to be largely premeditated. However, premeditation has been even more consistently shown in domestic homicide-suicide cases (Banks et al., 2008; Dawson, 2005). Further, those motivated by sickness

and other life stressors are more likely to commit suicide after domestic homicide, rather than those with different motivations, such as jealousy (Dawson, 2005; Malphurs & Cohen, 2005).

The domestic homicide-suicide perpetrator is often found to have a history of depression. In fact, in a study conducted by Rosenbaum (1990), depression was present in almost all perpetrators of domestic homicide-suicide, whereas none of the homicide-only group presented with depressive symptoms. Subsequent research has supported such findings, indicating depression in domestic homicide-suicides to be more likely than in homicide cases alone (Belfrage & Rying, 2004; Bourget et al., 2000; Liem & Roberts, 2009; Malphurs & Cohen, 2005). Interestingly, although rates of depression are severely high in domestic homicide-suicide cases, the presence of antidepressants shown in autopsies is extremely unlikely. Regardless of whether the perpetrator had been prescribed antidepressants by their physician, rates of antidepressant use in such cases are, at best, low (Cohen, Llorente, & Eisdorfer, 1998; Rosenbaum, 1990). This illustrates the issue of depression going undetected and the severity of prescription non-adherence.

Four types of homicide-suicide have been proposed in previous research: spousal murder-suicide, filicide-suicide, familicide-suicide, and extrafamilial murder-suicide (Marzuk, Tardiff, & Hirsch, 1992). Of particular relevance to the current study, spousal murder-suicide has been described as two-fold. First, spousal murder-suicides with declining health as the motive involve aging couples with severe mental or physical health issues. In these cases, the male is typically the caregiver to his ailing partner, and both individuals can no longer cope with their present health problems. Such relationships have been further supported in domestic homicide-suicide research, indicating older male perpetrators are often in the caregiving role for their sick wife (Malphurs & Cohen, 2005; Salari & Sillito, 2016; Warren-Gordon, Byers, Brodt, Wartak, &

Biskupski, 2010). Secondly, spousal murder-suicides with amorous jealousy as the motive involve males killing their intimate partner over rejection: specifically, the separation of the relationship, perceived or real infidelity, and/or the female's new relationship (Eliason, 2009; Marzuk et al., 1992). However, as pointed out by Liem (2010), such definition of spousal homicide-suicide is missing additional factors, such as interpersonal dependency, an important aspect of such cases found in many studies.

Taken altogether, it is clear that domestic homicide-suicide has unique characteristics and risk factors. Domestic homicide-suicide is a different act than domestic homicide alone, with perpetrators commonly being older, employed, having access to a firearm, lacking a criminal record, and lacking substance abuse problems. These perpetrators also differ from domestic homicide perpetrators in their motivations and level of planning for the incident. Specifically, domestic homicide-suicide perpetrators are typically motivated by ill health and life stressors, and premeditation is much more evident.

Domestic Homicide and Homicide-Suicide in the Older Population

Although homicide overall is generally characterized as involving younger individuals, domestic homicide is still a reality for the older population. In Canada, from 2002 to 2013, there were 0.68 domestic homicide victims (per 100,000 individuals) over the age of 55 (Boyce & Cotter, 2013). Of reported domestic homicide-suicide cases in the past decade in Canada, two-in-five were couples over the age of 65 (Statistics Canada, 2004). Further, studies conducted in the United States have shown that domestic homicide-suicide by perpetrators aged 55 and older account for about one-third of all homicide-suicide deaths (Cohen, 2000). Unlike decreasing trends in other homicide cases, domestic homicide within older individuals has been an increasing phenomenon since the 1990s (Brennan & Boyce, 2013). Moreover, as previously

illustrated, older age groups have the highest rates of domestic homicide-suicide, making it critical to obtain a better understanding of its etiology and risk factors.

In line with domestic homicide and homicide-suicide research overall, such cases involving older individuals is almost entirely male-perpetrated, with depression, a history of domestic violence, access to a firearm, and fear of separation being important risk factors (Bourget et al., 2010; Cohen et al., 1998; Malphurs & Cohen, 2005). However, of the limited research available, domestic homicide and homicide-suicide in the older population has been found to differ in marked ways than such acts within younger age groups. Physical and mental illness of both the perpetrator and/or the victim is an extremely vital risk factor. Many cases of domestic homicide-suicide in particular note the presence of a caregiving role in the perpetrator (Salari & Sillito, 2016). Some studies have found that more than three-quarters of victims were known to have a medical problem at the time of the incident, and most health problems were severe in nature (e.g., dementia; Bourget et al., 2010; Salari, 2007). Spousal caregiving is associated with an increased risk for depression, making it not surprising to find that depression is an extremely prominent characteristic within older perpetrators (Bourget et al., 2010; Cohen, 2000; Rosenbaum, 1990). Further, unlike many cases of domestic homicide, couples within the older population are more often in intact marriages (Salari, 2007; Salari & Sillito, 2016).

Unfortunately, research on such cases is in its infancy. Moreover, it is often the case that beneficial information is missing from data (e.g., no information given on the couple's history of domestic violence), reports are subjective in nature (i.e., the use of newspaper reports), and there is little comparison between cases of domestic homicide and homicide-suicide. These methodological issues lead to a less comprehensive understanding of this phenomenon in the

older population, an understanding that is vital for the identification and prevention of domestic homicide and suicide.

Domestic Violence Death Review Committees

A relatively new, and extremely important, development within the research arena on domestic homicide is domestic violence death review (DVDR) committees. The overarching purpose of these committees is to perform in-depth, comprehensive analyses of domestic homicide cases. The goal of gathering such extensive data is to determine the trends and risk factors that can inform preventative efforts (Jaffe, Dawson, & Campbell, 2013). Domestic violence death review teams operate on an exposure reduction framework, positing that strategies to help abuse victims leave violent relationships safely or diminish the development of violent relationships can reduce the number of domestic homicides (Jaffe et al., 2013; Wilson & Websdale, 2006).

The first DVDR team was established in San Francisco in response to a well-known femicide case (Websdale, Town, & Johnson, 1999). Since then, the importance of such committees has been recognized and countless DVDR teams have been developed across the world (Wilson & Websdale, 2006). In 2003, Ontario developed the first DVDR committee in Canada after two high-profile domestic violence deaths. These two cases reviewed by the Ontario Domestic Violence Death Review Committee (DVDRC) introduced vital recommendations for the identification and prevention of future domestic homicides. In particular, the DVDRC identified the need for education and training programs, appropriate risk assessment and risk management strategies, and the modification of justice procedures (Jaffe et al., 2013). Most recently, committees have further been developed in British Columbia, Manitoba, and New Brunswick (Jaffe et al., 2013).

The Ontario DVDRC is comprised of a multidisciplinary panel of reviewers, with a variety of individuals from social service, child welfare, justice, corrections, and health care backgrounds (Jaffe et al., 2013). Once all investigations and court proceedings are finished in a domestic homicide case, the panel reviews reports from coroners, police, families, friends, and witnesses (DVDRC, 2014). It is the hope of the DVDRC that determining risk factors and themes within domestic homicide cases can lead to better prediction and prevention of such violence. The DVDRC examines the circumstances leading up to and surrounding the homicide, including the interventions or services provided to both the victim and perpetrator. In doing so, the DVDRC is able to highlight the missed opportunities to protect victims, and make recommendations to various organizations and systems on how they could provide better responses or preventative efforts (DVDRC, 2014; Jaffe et al., 2013).

Operational Definition of Older Individuals

Society's concept of older age is changing. Canada's population of older adults has risen and continues to rise, with an expectation that older individuals will account for 20.1% of the population in the next decade (Statistics Canada, 2015). This exponential rise is accounted for by increasing life span. Older individuals are living longer and working longer (Canadian Institute for Health Information [CIHI], 2011). Due to these societal changes, the older age group is heterogeneous. Many adults over the age of 55 are working full-time, living independent lives, and are physically mobile and functional (Statistics Canada, 2015). On the other hand, a significant subset of the older population is retired, living in nursing or retirement homes, and have substantial physical and mental limitations. There is a large variability in health status and independency within the older age group (CIHI, 2011).

In regards to research, the term “older individual” is arbitrary. Different studies use different operational definitions to describe an older individual. Many studies use a cut-off point of 50 years of age and older to characterize older individuals; whereas, several other studies use individuals over the age of 65. Further, some states define “elder abuse” as abuse against any vulnerable adult (e.g., physical, mental impairments; Administration on Aging, 2000). Overall, a large majority of research that has examined older individuals and domestic violence or homicide has used a population cut-off point of 55 years of age and up (e.g., Boyce & Cotter, 2013; Cohen, 2000; Sinha, 2013). Due to older age being an arbitrary definition and the possibility of different experiences between one older adult to the next, 55 years of age was chosen as the cut-off point for the present study. This was chosen to ensure that important segments of the population were not excluded.

Rationale and Purpose of the Current Study

As previously shown, there is a significant gap in the literature on the phenomenon of domestic homicide and homicide-suicide in the older population. From prior research, it is known that domestic homicide is different from other forms of homicide. Moreover, domestic homicide in older age groups is different from that in younger age groups. It is also suggested that domestic homicide and homicide-suicide are exclusive acts. However, there is a lack of a comprehensive understanding of what makes the older population different, with unique characteristics and risk factors.

The purpose of this study was to identify differences in characteristics and risk factors for domestic homicide and homicide-suicide between the older and younger population. Such knowledge can contribute to more thorough strategies for early detection and prevention techniques; specifically, risk assessment and risk management strategies. Due to the lack of

research available on these deaths in the older population, it is possible that risk factors in such cases are going unnoticed. It is vital that such characteristics that pose a serious risk to older women be identified. Further, if older perpetrators of domestic homicide and homicide-suicide are in fact different from younger perpetrators, effective assessment and intervention strategies can be tailored to this population.

Hypotheses

Based on previous literature, the following findings were expected.

Differences between Older and Younger Age Groups

1. Domestic homicide and homicide-suicide in the older population will involve fewer risk factors than such cases in the younger population.
2. Of the risk factors known, couples in the older population will have more health problems, either on the side of the victim, the perpetrator, or both. Depression is expected to be most pertinent in these cases.
3. Domestic violence, separation or impending separation, threats to kill the victim, criminal history, substance abuse, obsessiveness and jealousy, unemployment and the presence of a cohabiting or dating relationship will be more salient in younger age groups.
4. Older couples will have less outside contact with formal systems and supports overall. Younger couples will have more contact with the criminal justice system and outside resources for mental health and domestic violence. Older couples will have more contact with health care providers.

Differences between Domestic Homicide and Homicide-Suicide in the Older Population

5. Domestic homicide-suicide will be more common than homicide alone in the older population.
6. Domestic homicide-suicide cases in the older population will involve higher levels of depression, intact marriages, the presence and use of a firearm, a caretaking role of the perpetrator, and prior threats to commit suicide.
7. Domestic homicide-suicide cases in the older population are expected to be motivated by illness.

Method**Data Collection**

Data for this study was obtained through reports from the Domestic Violence Death Review Committee (DVDRC) of the Office of the Chief Coroner of Ontario. The DVDRC consists of domestic violence experts across a range of disciplines, including healthcare and social service professionals, law enforcement, and public safety organizations. Since 2003, the Ontario DVDRC has conducted thorough examinations of 199 domestic homicide cases to date (DVDRC, 2015). This includes the gathering of detailed personal characteristics of the individuals; reports from family, friends, coworkers and neighbours; and file information from health professionals and law enforcement. The primary purpose of the DVDRC is to gain an understanding of the context in which the incident happened and to construct more effective strategies and interventions to prevent similar tragedies from happening in the future. All data used for the current study was obtained from the cases reviewed through the DVDRC. The dataset was pre-existing and was based on a coding form used by the DVDRC (see Appendix A).

Cases

This study was a retrospective case analysis of 92 domestic homicide deaths. The focus of this study was solely on domestic homicide and suicide; as such, only cases in which an adult intimate partner was killed were included. More complex relationship dynamics, such as the inclusion of child, sibling, or parental victims, were beyond the scope of this study. Further, only cases in which the perpetrator was a male and the victim was a female were examined. This criterion was put in place due to the nature of domestic homicides to be largely perpetrated by males. As such, there were not enough female-perpetrated homicides to allow for meaningful comparisons. All together, nine cases were excluded from the analyses that did not meet the criteria.

For the purposes of this study, the analyses were broken down into a younger group and older group. Specifically, couples within the age range of 30 to 50 ($n = 70$) were characterized as the younger group, and couples that were at least 55 years old ($n = 22$) were characterized as the older group. In order to be included in these groups, both partners (perpetrator and victim) had to be in the same age group. Fifty-five years of age was chosen as the cut-off point in order to ensure that important segments of the population were not excluded. Often, there is not a vast difference between age 55 and what is considered to be “elderly” in regards to health problems, physical limitations, and no dependent children living with them (Stutts, 2014). Further, some individuals older than 55 are still in the workforce and living independently. As such, the older age group can be heterogeneous, with one older adult having a variety of different experiences than the next. To account for this variability, 55 years of age and older was used as the older age group within this study.

Procedure

The researcher was granted access to the DVDRC database following an oath of confidentiality and approval through the Western University Ethics Review Board (see Appendix B). Cases were identified by numbers to ensure confidentiality. Identifying information about the cases was stored in a separate master list, and the dataset was accessed on a password-protected computer.

Statistical Analysis

Cases were separated into two groups: 30-50 year old couples and 55 and older couples. Further, the type of homicide in the older group was broken into two groups: domestic homicide and homicide-suicide. Socio-demographic information such as the perpetrator's employment status, residency status, and relationship with the victim were investigated. Risk factors associated with both the different age groups were examined, including but not exclusive to a history of domestic violence, escalation of violence, threats against the victim, substance abuse, actual or pending separation, and physical or mental illness. Case contacts were also analyzed for each group to determine help seeking behaviour and the professionals involved with the couple prior to the event. By looking at who each group has contact with most, more effective strategies for prevention can be developed. Characteristics of the cases were analyzed for further differences between domestic homicide and homicide-suicide cases in the older group.

Comparisons between groups (i.e., older population versus younger population; domestic homicide versus homicide-suicide in the older population) were completed through descriptive information and chi-square analyses. Specifically, chi-square tests were used to determine the risk factors, characteristics, and contacts that were most likely to occur in each group. T-tests were conducted to analyze continuous variables, such as number of risk factors present in the

cases. Due to a large amount of comparisons, a significance level of $\alpha = 0.01$ was used for comparisons without an a priori hypothesis. A significance level of $\alpha = 0.05$ was used for comparisons with a priori hypothesis.

Results

Socio-Demographic Characteristics

Characteristics of the perpetrators were examined to provide a thorough depiction of the separate groups (see table 1). Perpetrators in the younger age group had an average age of 41 ($SD = 5.51$), and perpetrators in the older age group had an average age of 67 ($SD = 9.92$). Overall, the total sample was largely characterized as Canadian citizens ($N = 57$; 61.9%). There was also a relatively even number of homicide cases and homicide-suicide cases (47.8% and 52.2%, respectively). However, there were marked demographic differences between the younger age group and older age group. The younger population was generally separated or divorced from the victim at the time of the incident ($n = 29$; 41.4%) and employed ($n = 36$; 51.4%). The divorce rate for the younger population closely matched the overall divorce rate in Ontario, which was at 42.1% in 2008 (Milan, 2011). Although the majority of the younger population was employed, it is worthwhile to note that the unemployment rate for this population ($n = 25$; 37.9%) far exceeded the overall unemployment rate in Ontario (6.7%; Statistics Canada, 2015). The older population was most likely to be married to the victim ($n = 15$; 68.2%) and either retired or on disability ($n = 15$; 68.2%). Further, cases in the older population were significantly more likely to be domestic homicide-suicide, rather than homicide alone ($n = 18$; 81.8%), $\chi^2(1) = 10.18, p < .05$.

Table 1

Socio-Demographic Characteristics between Younger and Older Groups

	Younger Population		Older Population		Total	
	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Total Cases	70	(76.1)	22	(23.9)	92	(100)
Type of Case						
Homicide	40	(57.1)	4	(18.2)	44	(47.8)
Homicide-Suicide	30	(42.9)	18	(81.8)	48	(52.2)
Relationship Status						
Legal Spouse	22	(31.4)	15	(68.2)	37	(40.2)
Common-Law	17	(24.3)	2	(9.1)	19	(20.7)
Dating	2	(2.9)	2	(9.1)	4	(4.3)
Separated/Estranged/Divorced	29	(41.4)	3	(13.6)	32	(34.8)
Employment Status						
Employed	36	(51.4)	5	(22.7)	41	(44.6)
Unemployed	25	(37.9)	2	(9.1)	27	(30.7)
Other	4	(6.1)	15	(68.2)	19	(21.6)
Unknown	1	(1.5)	0	(0.0)	1	(1.1)
Citizenship Status						
Canadian Resident	44	(62.9)	13	(59.1)	57	(61.9)
First Nations	3	(4.3)	1	(4.5)	4	(4.3)
Immigrant	16	(22.9)	5	(22.7)	21	(22.8)
Unknown	7	(10.0)	3	(13.6)	10	(10.9)

Risk Factors between Age Groups

Several risk factors were examined between the younger population and older population. See Appendix C for a complete list of risk factors identified by the DVDRC (2015). For the purposes of this study, 29 variables related to the DVDRC risk factors were examined (see Appendix D). Variables that were not equally relevant to both age groups, such as child custody disputes, assault during pregnancy, and youth of couple, were not examined. Independent chi-square tests were conducted and statistically significant relationships were found for eight variables (see table 2).

Domestic Violence. A chi-square comparison was used to determine if a relationship existed between domestic violence and the different age groups. A significant relationship was found, $\chi^2(2) = 10.67, p < .05$. Of the couples in the younger population, 78.6% ($n = 55$) had a

known history of domestic violence, whereas in the older population, only 45.5% ($n = 10$) had a history of domestic violence.

Actual or Pending Separation. There was a statistically significant difference between age groups and the couple's history of separation, $\chi^2(2) = 32.08, p < .001$. Younger couples were much more likely to be separated or going through a separation (87.1%, $n = 61$) than older couples (27.3%, $n = 6$).

Prior Threats. A significant difference was found between the age groups and the perpetrator's prior threats against the victim. Specifically, 48.6% ($n = 34$) of perpetrators in the younger age group had previously threatened to kill the victim, whereas 13.6% ($n = 3$) of perpetrators in the older group had threatened to kill the victim, $\chi^2(2) = 8.64, p < .05$. Perpetrators in the younger group were more likely to have prior threats against the victim with a weapon (24.3%, $n = 17$) than perpetrators in the older age group (0%); however, it did not reach statistical significance, $\chi^2(2) = 7.03, p > .01$. There was no difference between age groups and the perpetrator's prior assault against the victim with a weapon, $\chi^2(2) = 2.07, p > .01$.

Criminal History. Younger perpetrators were found to have much higher rates of criminality (62.9%, $n = 44$) than older perpetrators (27.3%, $n = 6$). This difference was statistically significant, $\chi^2(2) = 10.04, p < .05$.

Substance Abuse. There was not a significant difference between age groups and the perpetrator's substance abuse, $\chi^2(2) = 1.01, p > .05$. Perpetrators in the younger age group had similar rates of substance abuse (37.1%, $n = 26$) as perpetrators in the older age group (27.3%, $n = 6$).

Obsessiveness and Jealousy. Obsessive behaviour was significantly more prevalent in perpetrators in the younger age group (64.3%, $n = 45$) than perpetrators in the older age group

(18.2%, $n = 4$), $\chi^2(2) = 14.32$, $p < .001$. Sexual jealousy, defined as the perpetrator continuously accusing the victim of infidelity, their obsession over their partner's sexual relationships, and their tendency to stalk the victim (DVDRC, 2014), was not significantly different between groups, $\chi^2(2) = 4.32$, $p > .05$. Perpetrators in the younger age group were no more likely than perpetrators in the older age group to display sexual jealousy (36.6% and 22.7%, respectively).

Mental Health Problems. There was not a significant difference between age groups and the presence of depression, $\chi^2(2) = 4.73$, $p > .05$. There were 39 (55.7%) perpetrators in the younger age group and 17 (77.3%) perpetrators in the older age group where depression was evident. Depression was diagnosed more frequently in the older age group (50%, $n = 11$) than the younger age group (25.7%, $n = 18$); however, the difference did not reach significance, $\chi^2(2) = 5.43$, $p > .05$. There was not a significant difference between the presence of psychiatric illness and age groups, $\chi^2(2) = 2.43$, $p > .01$. Psychiatric illness was evident in 34.3% ($n = 24$) of younger perpetrators and 27.3% ($n = 6$) of older perpetrators.

Additional Risk Factors. Along with the predicted risk factors, additional characteristics were found within the age groups. The presence of a new partner in the victim's life, either real or perceived, was significantly more common in younger cases (45.7%, $n = 32$) than in older cases (9.1%, $n = 2$), $\chi^2(2) = 9.68$, $p < .01$. Perpetrators in the younger age group were also more likely to have a history of failing to comply with authority (32.9%, $n = 23$) than those who were older (4.5%, $n = 1$). This difference almost reached statistical significance, $\chi^2(2) = 8.14$, $p = .017$.

Number of Risk Factors. A t-test was conducted to assess whether there was a significant difference in the amount of risk factors present in the cases according to age group. Cases in the younger age group had a mean of 11.80 risk factors ($SD = 5.24$), while cases in the older age

group had a mean of 6.18 risk factors ($SD = 4.83$). This difference between groups was statistically significant, $t(90) = 4.46$, $p < .001$.

Table 2

Significant Risk Factors in the Younger and Older Population

	Younger Population		Older Population		Total		χ^2
	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%	
History of Domestic Violence	55	(78.6)	10	(45.5)	65	(70.7)	10.67*
Prior Threats to Kill Victim	34	(48.6)	3	(13.6)	37	(40.2)	8.64*
Prior Threats with Weapon Against Victim	17	(24.3)	0	(0.0)	17	(18.5)	7.03*
Obsessive Behaviour	45	(64.3)	4	(18.2)	49	(53.3)	14.32**
Actual or Pending Separation	61	(87.1)	6	(27.3)	67	(72.8)	32.08**
New Partner in Victim's life (Real or Perceived)	32	(45.7)	2	(9.1)	34	(37.0)	9.68*
Failure to Comply with Authority	23	(32.9)	1	(4.5)	24	(26.1)	8.14*
Criminal History	44	(62.9)	6	(27.3)	50	(54.3)	10.04*

* $p < .05$ $df = 2$

** $p = .001$

Case Contacts

Cell sizes were too small to assess statistical significance, and so frequency statistics were conducted to assess the common outside contacts that couples had in both age groups. Couples in the younger age group had more contact with police (62.8%, $n = 44$ cases in which at least one partner had contact), court and judges (32.8%, $n = 23$), corrections contact (15.7%, $n = 11$), domestic violence services (18.6%, $n = 13$), and mental health care provider contact (48.6%, $n = 34$).

The majority of couples in the older age group had contact with physical health care providers (90.9%, $n = 20$). Further, victims in the older age group were prescribed medication significantly more often (68.2%, $n = 15$) than victims in the younger group (21.4%, $n = 15$), $\chi^2(2) = 17.19$, $p < .01$. Victims in the older age group were also more likely to be taking

medication at the time of the incident (63.6%, $n = 14$) than those in the younger group (21.4%, $n = 15$), $\chi^2(2) = 14.91$, $p < .01$.

A t-test was conducted to assess whether there was a significant difference in the number of outside contact couples had in the younger and older groups. There was a statistically significant difference ($t(90) = 2.41$, $p < .05$). Couples in the younger group had an average rate of 5.87 ($SD = 4.63$) outside contacts, and couples in the older group had an average of 3.32 ($SD = 3.20$) contacts.

Characteristics of the Older Population

Descriptive analyses were conducted to determine differences between homicide and homicide-suicide cases in the older population. Due to small rates of homicide-only cases in this age group ($n = 4$), statistical significance could not be determined. As such, differences between homicide and homicide-suicide were determined through exploratory means.

Mental Health. The evidence of depression was equally apparent between perpetrators that committed domestic homicide or homicide-suicide in the older population (75% and 77.8%, respectively). However, the diagnosis of depression was more common in homicide-suicide cases (55.6%, $n = 10$) than homicide alone (25%, $n = 1$). The presence of other psychiatric illnesses was more common in homicide-only cases (50%, $n = 2$) than homicide-suicide (22.2%, $n = 4$).

Relationship between Perpetrator and Victim. Both groups had similar relationship statuses. The majority of both domestic homicide and homicide-suicide cases were characterized as being in intact marriages (75% and 66.7%, respectively).

Access to a Firearm. Perpetrators of domestic homicide-suicide were more likely to have access to a firearm (38.9%, $n = 7$) and use a firearm for the event (27.8%, $n = 5$) than perpetrators of domestic homicide alone.

Prior Threats or Attempts of Suicide. Perpetrators of homicide-suicide were more likely to have prior suicide threats or attempts (44.4%, $n = 8$) than perpetrators of homicide only (25%, $n = 1$).

Themes. In order to determine any themes present in cases of domestic homicide-suicide in the older age group, qualitative information was gathered through case summaries provided by the DVDRC (2015). Specifically, information was obtained surrounding each couple's history, characteristics of the case, and the motivation behind the incident. Fourteen domestic homicide-suicide case summaries were provided, in which particular themes were identified (see table 3). Several themes could be present in any individual case.

Characteristics within dominant themes were further distinguished. Of the 14 cases, abuse was the dominant theme in six cases, and health issues were the dominant theme in 8 cases (see table 4). Although health issues were apparent in some of the abuse cases, and vice versa, the most prominent characteristic was used to identify the dominant theme of the incident (e.g., a long-standing history of physical domestic violence was categorized as an abuse theme). Cases in which the dominant theme surrounded health issues were largely characterized by mental and physical health issues on both the perpetrator and victim's part, with the victim often being in a vulnerable position and the perpetrator taking on a caregiving role for the victim. Suicide pacts were also present in two of these cases. On the other hand, cases in which abuse was identified as the primary theme were often characterized with psychological abuse, separation or a history of separation between the couple, and the victim's fear of the perpetrator. See Appendix E for

examples of case summaries. The case summaries provided are readily available through the public DVDRC report and do not include any identifying information.

Table 3
Homicide-Suicide Themes

	<i>N</i> = 14	
	<i>N</i>	%
Mental Health	10	71.4
Physical Health	7	50.0
Caregiver Role	3	21.4
DV/Other	9	64.3
Behaviours		
Separation	4	28.6
Financial Stressors	4	28.6

Table 4
Domestic Homicide-Suicide Characteristics

	Abuse (n = 6)		Health (n = 8)	
	<i>n</i>	%	<i>n</i>	%
Mental Health Problems				
Perpetrator	2	(33.3)	3	(37.5)
Victim	0	(0.0)	7	(87.5)
Physical Health Problems				
Perpetrator	1	(16.6)	3	(37.5)
Victim	2	(33.3)	4	(50.0)
History of Domestic Violence				
Physical	1	(16.6)	2	(25.0)
Psychological	5	(83.3)	2	(25.0)
Separation	4	(66.7)	2	(25.0)
Financial Stressors	1	(16.6)	2	(25.0)
Perpetrator's Prior Suicide Attempts	2	(33.3)	1	(12.5)
Suicide Pact	0	(0.0)	2	(25.0)
Victim's Vulnerability/Dependency	1	(16.6)	4	(50.0)
Perpetrator in Caregiving Role	0	(0)	3	(37.5)
Victim's Fear of Perpetrator	3	(50.0)	1	(12.5)

Discussion

Domestic homicide has been extensively studied within the younger population; however, there is a significant gap in the literature on such cases with older adults. As a whole, rates of domestic homicide have been decreasing for the past few decades. However, importantly, rates have been increasing for older couples in particular (Brennan & Boyce, 2013). With Canada's older population growing in size, an understanding of the characteristics and risk factors associated with domestic homicide in this age group is vital.

This study was a retrospective investigation of domestic homicide and homicide-suicide in the older population. The purpose of the study was to compare between such incidents in older couples versus younger couples. Particularly, this study sought to determine the specific risk factors and characteristics of domestic homicide and suicide in the separate age groups. Data was gathered from case summaries reviewed by the Domestic Violence Death Review Committee (DVDRC, 2015). Only cases in which the perpetrator was a male and the victim was a female were included. Further, cases were broken down into a younger age group (both individuals involved were 30-50 years of age) and an older age group (both individuals involved were at least 55 years of age). With exclusion criteria set in place, 92 domestic homicide and suicide deaths were examined.

Based on previous literature, there were a number of hypotheses for this study. First, it was predicted that cases within the older population would have fewer risk factors present than such cases in the younger population. Of the risk factors present, it was expected that the older population would have more health issues. Of the risk factors present in the younger population, it was expected that domestic violence, separation, prior threats, perpetrator criminality, substance abuse, unemployment, a dating or cohabiting relationship, and obsessiveness and

jealousy would be most salient. It was predicted that older couples would have less contact with the criminal justice system and more contact with the health care system. Hypotheses were also developed from previous literature regarding differences between domestic homicide and domestic homicide-suicide. Such hypotheses included the prediction that domestic homicide-suicide would be most common in the older population, would involve higher levels of depression and physical illness, use of firearms, intact marriages between the perpetrator and victim, and the perpetrator taking on a care-giving role to the victim.

Results from this study were consistent with a number of hypotheses (see table 5 for summary of findings). As expected, there were several significant differences between domestic homicide in younger couples versus older couples. Younger couples had significantly more risk factors present in their cases. Younger couples had more outside contacts, particularly with the criminal justice system, domestic violence services, and mental health care providers. Older couples had more contact with health care providers. Domestic homicide-suicide was found to be much more common in the older age group, and depression, access to a firearm, and prior suicide threats or attempts were established as the most prevalent risk factors of such.

Table 5

Differences Between the Younger and Older Population

Younger Population	Older Population
More risk factors present	Less risk factors present
A history of domestic violence	Presence of depression within perpetrator
Perpetrator's previous threats to kill the victim	Perpetrator's previous threats/attempts to commit suicide
Separated	Married
Perpetrator's obsessive behaviour	Perpetrator's access to a firearm
Presence of a new partner in victim's life	Physical health issues on both sides
Perpetrator employed	Perpetrator retired
More outside contact	Less outside contact
Contact with the justice system, mental health providers, domestic violence services	Contact with health care professionals

Relevance to Previous Literature

Risk Factors between Populations. Previous literature has cited a number of factors characteristic of domestic homicide. A history of domestic violence, separation, the presence of a step-child in the home, access to a firearm, prior threats, unemployment, and the woman's attempts to leave the relationship are all well-established risk factors (Campbell et al., 2003; Dobash et al., 2007; DVDRC, 2015; Farr, 2002; Sinha, 2013). However, it is clear that such risk factors are more applicable to the younger population, in which the vast majority of domestic homicides take place. In line with prior research, this study found that younger perpetrators were more likely to be separated from the victim, have a history of domestic violence and criminality, have previously threatened to kill the victim, and display obsessive behaviour. Further, the presence of a new partner in the victim's life, whether real or perceived, was a common risk factor in the younger age group.

Substance abuse and sexual jealousy are also commonly cited characteristics of domestic homicide perpetrators (Dobash et al., 2007; DVDRC, 2015; Farr, 2002). Such characteristics were found in the current study; however, contrary to the hypotheses, they were not more common in the younger age group. That is, both the younger and older age group had similar rates of substance abuse and jealousy. Psychological health has been frequently studied in cases of domestic homicide. In particular, the perpetrator's experience of depression has been shown to be a common risk factor (Dixon et al., 2008; DVDRC, 2015, Rosenbaum, 1990). Further, depression has been linked specifically to older perpetrators of domestic homicide (Bourget et al., 2010; Oram et al., 2013; Salari & Sillito, 2016). In line with prior research, older perpetrators were found to have higher levels of depression, whether it was evidence of depression through the opinions of family and friends, or the diagnosis of depression by a healthcare professional.

However, this difference did not reach statistical significance, likely due to the small sample size. Subsequent analyses about the health of couples between age groups could not be completed due to the lack of such information in the majority of cases.

As expected, the well-established risk factors for domestic homicide were only applicable to the younger population. Perpetrators in the older age group were largely characterized as retired or on disability and married to the victim, factors uncommon to younger perpetrators. Further, as hypothesized, cases within the younger population had a significantly greater amount of risk factors present than cases within the older population. Although a history of domestic violence was not present in all of the older couples studied, domestic violence was still an important characteristic of several cases. As previously outlined, older individuals face many barriers in regards to domestic violence disclosure and help-seeking behaviours. Older women in particular are at risk for abuse due to their physical vulnerabilities, limitations, and dependencies (Stutts, 2014; Yon et al., 2014). Further, older individuals may consider abuse to be a private matter or a stigmatized topic and avoid seeking help (Salari, 2007). It is important to consider that domestic violence is typically not an isolated event; instead, abuse often occurs over the lifespan (Walsh et al., 2007). In regards to this study, it is possible that many of the couples studied had a long-standing history of domestic violence, but did not disclose the information or seek help.

Case Contacts between Populations. In regards to seeking help, older individuals face significant barriers. Domestic violence is often considered a private matter, mental illness carries a stigma, and certain health and mobility vulnerabilities are often at play, leading to greater barriers for both victims and perpetrators to seek outside help (Brennan, 2012; Salari, 2007; Weeks & LeBlanc, 2011; Yon et al., 2014). Due to these factors, it was hypothesized that older

couples would have less contact with others outside of their relationship. As expected, younger couples had more contact with the justice system (e.g., police, family court, lawyers), domestic violence services, and mental health providers. On the other hand, older couples had more contact with health care providers. Overall, older couples had significantly less outside contact than younger couples.

Characteristics of Domestic Homicide and Homicide-Suicide. Previous research has found a discernable difference between domestic homicide and homicide-suicide. Specifically, of the limited research examining older perpetrators, domestic homicide-suicide has been established as more common than homicide alone in this age group (Banks et al., 2008; Dawson, 2005; Liem, 2010). As expected, the type of case in the older age group of this study was significantly more likely to be domestic homicide-suicide.

Along with differences in age, previous research has shown differences in the perpetrator's characteristics based on type of homicide. In particular, perpetrators of domestic homicide-suicide tend to have higher levels of depression, have previously threatened or attempted suicide, have access to a firearm, and are in an intact marriage (Banks et al., 2008; Dawson, 2005; Liem & Roberts, 2009; Malphurs & Cohen, 2005). Although statistical differences could not be found in this study due to sample size, several characteristics were noted. As previous literature would suggest, the diagnosis of depression; access to and use of a firearm; and prior suicide threats or attempts were more common in domestic homicide-suicide cases than homicide alone. However, unlike the findings of prior research, perpetrators in both homicide and homicide-suicide groups were equally likely to be in intact marriages.

Of the limited research available, older perpetrators of domestic homicide-suicide have often been found to be in a caregiving role, particularly taking care of the victim whose physical

and/or mental health has severely declined (Malphurs & Cohen, 2005; Warren-Gordon et al., 2010). As outlined through *the overwhelming burden* prototype of domestic homicide (Lewis et al., 1998), taking on a caregiving role for a spouse involves high levels of stress and responsibility. As the spouse becomes more dependent on the caregiver, the caregiver develops high levels of depression (Bourget et al., 2010; Cohen, 2000). Moreover, it is often the case that both the victim and the perpetrator experienced health issues, leading the perpetrator to care for his ailing partner while also balancing his own health (Marzuk et al., 1992; Malphurs & Cohen, 2005; Warren-Gordon, 2010). These facts are tied together with the finding that domestic homicide cases motivated by sickness and/or life stressors are more likely to precede the suicide of the perpetrator rather than homicide motivated by anger or jealousy (Dawson, 2005; Malphurs & Cohen, 2005). Of the fourteen case summaries that were provided, three older perpetrators of domestic homicide-suicide were known to be in a caregiving role to their victim. It may be the case that actual numbers of perpetrators being in a caregiving role was underestimated, as illness on the victim's side was a highly common factor in all cases with older couples.

The themes of homicide-suicide incidents were identified where case summaries were provided. Such themes fell into either abuse ($n = 6$) or illness ($n = 8$) categories. The abuse category consisted of cases in which domestic violence was a prominent characteristic within the couple's relationship. The illness category consisted of cases in which illness, either on the victim's side, the perpetrator's side, or both was a prominent characteristic. It was generally found that physical and/or mental health issues were present in the majority of cases regardless of the dominant theme. As such, the hypothesis of domestic homicide-suicide cases being characterized by illness was supported. Mental and physical illness was an overarching characteristic of both victims and perpetrators of domestic homicide-suicide.

Implications

The overarching implication of this research is the finding that domestic homicide within older individuals is a unique phenomenon. This research, along with previous studies, challenges common notions of domestic violence and homicide. Domestic homicide in this population is not as common as domestic homicide in younger age groups. However, such violence does happen in the older population and, as this study illustrates, it happens for different reasons. This study underscores the importance of developing appropriate risk assessments for older individuals, as well as increasing public and professional awareness of domestic homicide in the older population.

Risk assessment. This study has highlighted the risk factors that are considered to be characteristic of domestic homicide. As expected, there were significantly more risk factors present in the younger couples studied, and such risk factors were in line with the already well-established literature on the topic. Perhaps one of the major implications from this research is the finding that there are very few risk factors for older individuals. In other words, domestic homicide within the older population may be more difficult to predict than homicide in the younger population.

Commonly used risk assessments for domestic homicide typically focus on domestic violence, child abuse, substance abuse, and history of separation (Campbell, Webster, & Glass, 2009). Such factors are not consistent with the characteristics pertinent to older couples. As such, if risk assessments were conducted, results would not accurately assess risk of lethal violence within older individuals. To counteract this issue, risk assessments conducted with older adults should give more weight to the risk factors identified in the present study. Particularly, risk assessments should examine the presence of depression, caregiving roles, physical limitations,

and health issues within the couple. The older adult male should also be assessed for previous suicide threats or attempts and access to a firearm. Salari (2007) has further developed a comprehensive list of risk assessment topics that were not examined within this study, such as exploring major life stresses, recent experiences of bereavement, knowledge of assistive services, and estrangement from family members. These factors must be taken into consideration in order to gain an accurate picture of the risk that a couple is in.

Health-related risk factors. Depression within the perpetrator was one of the most salient characteristics of domestic homicide and suicide within the older population. The results found from this study are not new; depression has been a well-known risk factor for domestic homicide-suicide cases (Bourget et al., 2000; Liem & Roberts, 2009; Malphurs & Cohen, 2005; Rosenbaum, 1990). Although the presence of depression is high in such incidents, the rate of anti-depressant medications shown in autopsies has been alarmingly low (Cohen et al., 1998). Although some perpetrators may have been assessed for depressive symptoms and prescribed medication accordingly, prescription adherence is clearly missing in many cases (Rosenbaum, 1990). Due to depression playing such a large role in many domestic homicide-suicide cases within the older population, it is clear that depression going undetected and prescription non-adherence may be a significant issue.

As such, it is key for depression inventories to be utilized by health care professionals when working with this population. The Oklahoma Domestic Violence Fatality Review Board (2005) has developed a screening instrument for use by mental health workers. This instrument assesses suicidal ideation and homicidal ideation, access to firearms, and perceived sense of safety (Sullivan, 2005). Other assessments have also been developed to determine the presence of depression specifically in older individuals (e.g., Geriatric Depression Scale; Yesavage et al.,

1983). As recommended by the DVDRC (2008), “training for all mental health professionals should include assessment and intervention strategies dealing with male depression and the link between depression, suicidal ideation and domestic homicide”. It should be recognized by health care professionals that suicidal individuals are not only a risk to themselves but also to others, particularly those they are closest to (i.e., a partner or a spouse; Salari, 2007). Appropriate treatment of suicidal ideation has the ability to prevent the suicidal thoughts from escalating to homicide-suicide action.

Further, once depression is determined to be present, appropriate interventions can be employed. It has been well established that specific interventions that are designed for specific populations yield greater success. For example, addressing depression through psychotherapy with older men is more appropriate (Heisel, Talbot, King, Tu, & Duberstein, 2015), rather than addressing their anger, a tactic that would be better suited for younger potential perpetrators. Training professionals on using such instruments and developing appropriate treatment plans could lead to early detection before the depression goes too long being untreated.

The importance of assessing mental and physical health risk factors becomes salient in the following case summary taken from this study. Please see Appendix E for the full case summary.

This case involved the homicide of an 85-year-old female by her 83-year-old husband, who subsequently committed suicide. The couple had been married for over 50 years and had two adult children. The victim was in poor health and was taking multiple medications. She had sustained a stroke about six years prior, leaving her with limited mobility. She also suffered from dementia, macular degeneration, thyroid problems, and high blood pressure. The perpetrator suffered various health issues including arthritis,

headaches and ear problems that had been getting worse. Physician notes and interviews with family indicated that the perpetrator was suffering from depression. With the victim's poor health and mobility problems, the perpetrator was her primary caregiver, preparing the meals and administering her medications.

In this case, both the victim and perpetrator were suffering with severe health issues. The victim was highly vulnerable and dependent on the perpetrator. The perpetrator was known to have physical and mental health issues on top of his acquired caregiving role. As previously mentioned, a caregiving role is linked to depression and lowered well-being (Bourget et al., 2010; Malphurs & Cohen, 2005), a finding that is salient in this case. The perpetrator was in contact with a health professional and they were aware of the perpetrator's depressive symptoms. The case records are not clear on whether the perpetrator received treatment for his depression or not. It may have been that had the perpetrator been accurately assessed for depression and had he received appropriate treatment, the domestic homicide-suicide may not have taken place. Further, the physical health issues on the victim's side should have been called into question by health care professionals. Due to her poor health, she had limited mobility and, in turn, had significant barriers to obtaining help if needed. Gaining a more comprehensive picture of this couple's relationship would have led to a more accurate identification of risk that the couple was in.

Moreover, once risk was thoroughly determined, the physician would have the ability to bring in further health professionals (i.e., therapists, geriatric psychiatrists, support workers) to assist in caring for both the victim and perpetrator. As well, the importance of including family members in older couples' care should not be overlooked. As already known, caregiver stress can lead to abusive behaviours, and so including spousal respite care could be vital (Salari &

Sillito, 2016; Yon et al., 2014). Involving family members in the above case, if applicable, may have not only increased their awareness of the couple's physical and mental health issues, it may have taken some responsibility off of the perpetrator. This involvement may have decreased his sense of burden and depressive symptoms, and lowered the risk for domestic homicide-suicide.

Abuse-related risk factors. Although domestic violence was not as common within the older population as it was in the younger population, such history of violence should not go unnoticed. Due to domestic violence being cited as the most salient risk factor in countless studies on domestic homicide as a whole (Campell et al., 2003; Dobash & Dobash, 2011; DVDRC, 2015; Farr, 2002; Sharps et al., 2001; Sinha, 2013), domestic abuse should be assessed in older couples as well. Further, it is important to consider the barriers that older women face when addressing domestic violence (i.e., viewing abuse as a private matter, believing no one can or will help; Brennan, 2012; Yon et al., 2014). As such, health care professionals should assess a history of domestic violence through other means (e.g., present physical injuries, history of hospitalizations), rather than relying solely on the individual's report. As suggested by Brandl and Horan (2002), when dealing with the possibility of a domestic violence case within an older couple, the possible victim's competency to make important decisions about their safety should be assessed. Such assessment should be completed before prescribing powerful medications that may lessen the victim's ability to respond effectively to abuse. Moreover, health care professionals should document any signs of abuse, ensure confidentiality, provide information about abuse and referrals, and offer supportive messages to the victim (Brandl & Horan, 2002).

Awareness. The importance of involving more outside contacts in older individuals' lives is made clear through this study. There is a greater need for public and professional awareness on domestic violence in the older population.

Professional awareness and collaboration. Since older individuals have the most contact with health care providers, training such professionals on the signs, risk factors, and characteristics of domestic violence and homicide is vital. Such professionals working with older women need to be aware of the possibility of domestic violence within that population. It may be that health care professionals are not open to recognizing the signs of domestic violence within older women due to the notion of abuse being an issue only impacting younger generations.

Health care professionals such as physicians who may come in contact with domestic abuse victims of any age must be capable of referring such women to outside resources and support (e.g., domestic violence shelters, victim assistance programs; Hughes, 2010). Moreover, older individuals may need specialized resources to deal with specific issues. In particular, older adults may need resources to deal with age-related issues, such as health care, beyond the mandate of a typical domestic violence shelter. In a study examining domestic violence victims' needs while in a shelter, victims who were over the age of 55 most often reported that they were looking for emotional support, an understanding of how to handle money, and assistance with health issues (Lyon, Lane, & Menard, 2008). Although emotional support is often offered at such shelters, information on monetary issues and assistance with health care is likely more rare. Further, accessible services for individuals with disabilities or mobility impairments may be lacking within domestic violence shelters. Such issues need to be taken into consideration when examining the help, or lack thereof, that is available to older individuals.

Collaboration amongst professionals is critical in the prevention and early intervention of domestic homicide. As previously shown, there is a lack of available resources for older women experiencing domestic violence (Salari, 2007; Yon et al., 2014). Such women are often invisible to the public when discussing domestic violence. As such, they hold significant vulnerabilities to

violence and face large barriers to obtaining support (Beaulaurier et al., 2007; Stutts, 2014). Due to these societal issues, awareness, acknowledgement, and support by professionals is crucial.

The following case summary from this research illustrates the importance of awareness of domestic violence by professionals:

This case involved the homicide of a 69-year-old female and the suicide of the perpetrator, her 69-year-old husband. The couple had been married for over 50 years and had two adult children. Over the span of their marriage, the perpetrator had reportedly controlled the victim's activities through restricting her contact with family and friends and strictly overseeing their finances.

A few months prior to the homicide-suicide, the victim fell down the stairs and broke her ankle. She told a hospital social worker that the perpetrator had pushed her down the stairs and she seemed ambivalent as to whether she should return home to the perpetrator. She was provided emotional support and referrals, and the social worker discussed a safety plan with the victim and her sons.

The victim returned to her son's house, and her son reported the incident to police. Upon further questioning, the victim stated that the perpetrator had grabbed her hair causing her to fall down the stairs. She indicated her fear of her husband and police subsequently charged him with assault causing bodily harm. Over the next month, the perpetrator attended his son's residence where he harassed the victim until his son arrived home. The perpetrator was arrested on the outstanding warrant for assault and released on an Officer-in-Charge Undertaking and a Promise to Appear. He was cautioned against communicating directly or indirectly with the victim.

Approximately one month later, the victim informed a Victim Services worker that she was living at her son's residence with her husband, and was no longer concerned that he would assault her again. The Victim Services worker indicated that this living arrangement was a breach of the perpetrator's conditions and that he should speak with his lawyer. It is not clear whether police were informed about the breach.

The victim recanted earlier statements she had given about the assault, and both the victim and perpetrator indicated that they wanted to move back to their own home. The next day, the perpetrator called his son and the police and told them that he had killed the victim and was going to kill himself. Upon arrival at the home, police found the victim and the perpetrator both deceased with gunshot wounds consistent with a murder-suicide.

Professionals were aware of the abuse within this couple's relationship, and initially took appropriate measures to ensure that the perpetrator was charged. However, steps were not taken to ensure that the victim was still safe afterwards (i.e., the perpetrator continuing to harass her, the victim moving back in with the perpetrator). This case illustrates a lack of coordination amongst different professionals and systems involved with this couple. The police and health care professionals involved in this case knew the history of violence within this relationship, but did not collaborate to ensure the safety of the couple. It may be that had police and other court officials been aware of the no-contact order being breached, further action would have been taken against the perpetrator, ultimately protecting the victim.

Public awareness. Although the involvement of health care professionals is vital, increasing public awareness is also necessary. Friends, families, and neighbours are often in contact with older individuals the most. This fact has been highlighted by programs developed

by the Centre for Research and Education on Violence Against Women and Children (CREVAWC, 2015), including “Neighbours, Friends, and Families”, and “It’s not Right!”.

These programs have illustrated the need for public awareness and advocacy regarding the signs of domestic violence, with the purpose of allowing those in contact with a domestic violence victim to help in an appropriate way (CREVAWC, 2015).

As shown through this study, although many older couples were involved with at least one health care provider, there were still several couples that were not. However, family, friends, neighbours, and acquaintances were typically involved in older couples’ lives. In fact, it may be argued, that such individuals knew more about what was happening in the couples’ relationships and were subjected to more first-hand personal knowledge than health care professionals. Due to health care professionals often not identifying domestic violence in this population, it is imperative that families and friends are educated and aware of the warning signs and risk factors for domestic homicide. The following case summary from this study is an example of the potential influence of family, friends, and neighbours:

This case involved the homicide–suicide of a couple who had been married for approximately forty years and who had two children. The husband (age 60) stabbed his wife (age 57) to death and then himself.

The victim and perpetrator were known to have long-standing marital discord with issues around finances, health, gambling, and use of alcohol. The victim was a compulsive gambler and had dissipated their savings. The perpetrator was seen by others outside the home to be both dominating and verbally abusive toward the victim. He was very controlling. The perpetrator had retired ten years prior to the homicide-suicide and did not want the victim to have access to his money since she did not work and because

of her gambling. However, the perpetrator had forbidden the victim to work. She was also not allowed to obtain a driver's license. The perpetrator told a neighbour openly that if the victim were to ever leave him and go after his pension, he would kill her.

The victim's mother saw black and blue marks on her daughter many times. She also said after her daughter's death that her daughter never complained to police, friends, or agencies; she kept the abuse to herself. In fact, a few weeks before the deaths, the victim's mother took pictures of the bruising as evidence of the perpetrator's abusive behaviour toward the victim.

A few days prior to the incident, the victim confided to a friend that she was planning to leave the perpetrator for good and divorce him. On the day of the deaths, the victim told the perpetrator she was leaving him. The victim's friend of over 40 years saw the perpetrator at approximately 1:30 p.m. that same day. The friend later told the police that the perpetrator was very depressed and had been talking about suicide, which according to the friend was not unusual for him.

It is possible that the friend, family member, and neighbour involved in this case could have made a discernable difference to the tragic outcome. Several individuals within the couple's life had known about the abuse. Further, two individuals were aware of the perpetrator's homicidal and suicidal ideation. Had these individuals known that the characteristics within the couple's relationship were severe risk factors for lethal violence they may have taken action. Similarly, if these individuals knew appropriate steps to take to protect the victim they may have played a significant part in preventing the incident. Within cases such as the one outlined above where health professionals were not readily involved, family, friends, and neighbours play a vital role in preventing domestic homicide.

The inclusion of friends, families, and neighbours also has the potential to remove barriers for the victims of domestic violence. As found by previous studies, women are much less likely to seek support while experiencing abuse when they feel that they will be stigmatized or that others will be unable to help them (Logan, Stevenson, Evans, & Leukefeld, 2004). Moreover, it is important that older couples have social supports in place. Lack of social support leads to isolation, making it nearly impossible for others to notice warning signs (Yon et al., 2014). Education and awareness initiatives are key to developing greater knowledge and understanding of domestic violence. Further, such initiatives lead to public engagement in action against domestic homicide.

Limitations

The findings of the present research need to be considered in the context of the limitations of the study. First and foremost, there was a lack of information surrounding many of the risk factors throughout the dataset. Due to the dataset being based on many different resources for each case (i.e., police reports, coroners reports, interviews with family and friends), not every case had thorough information given. There was plenty of incomplete or unavailable data. Couples who were more isolated and less involved with community agencies had a particular issue of missing data. In such cases, less information is known on the couple's background. As such, actual rates of risk factors are likely underreported (e.g., the amount of perpetrators in a prior caregiving role for the victim or rates of abuse in the perpetrator's childhood). Further, this study used a retrospective, secondary dataset, which relied on reports and interviews. Such design can lead to biases and potential error in reporting or individual interpretation, regardless of the standardized coding form used. Future research would greatly

benefit from using cases where more detailed information is available, lending itself to more complete and accurate analyses.

Older adults are a heterogeneous group, with varying experiences from one adult to the next. In other words, an older adult may be retired and living in a nursing home. However, an adult of the same age may still be in the workforce and living independently with no severe health concerns. The heterogeneity of the older population was translated into this study, leading to a note-worthy limitation. Many of the older couples included in this research varied greatly: from working full-time to being retired; needing daily assistance to living independently; having severe mobility issues to being physically functional. Further, including a wider age range to encompass the older age group likely led to greater differences between couples' experiences. As previously mentioned, older age is an arbitrary definition, with different studies using different cut-off points. Future research would benefit from including several different age groups to examine domestic homicide and suicide. For example, assessing the difference between homicide in a younger population, a middle-age population, and an older age population would allow for narrower age groups and more generalizable results.

A large limitation of this study was the sample size. The well-established high rates of domestic homicide in the middle-age population and the low rates of homicide in the older population were reflected in the present dataset. That is, there was a significant disparity between the amount of domestic homicides in the younger population and the amount in the older population. Examining 70 cases involving younger individuals and 22 cases involving older individuals may not provide enough information for finding differences. As such, the findings of this study, particularly the findings of the older population, may not be generalizable to all domestic homicides within that age group. However, the purpose of this research was to provide

more insight into the specific characteristics and risk factors that older individuals face, information that is lacking from the literature. The existing literature on this topic would advance greatly with larger sample sizes, leading to greater generalizability and understanding.

Lastly, this study looked at completed homicides and has made conclusions as such. However, the database did not examine cases where homicide or homicide-suicide was prevented, whether through help-seeking behaviours of the victim or perpetrator, or the successful risk assessments and intervention strategies of health care providers. As such, future research may want to examine protective factors of domestic homicide, and address differences between cases that were completed and cases in which the homicide was prevented. Protective factors for younger individuals have been identified through previous research, such as use of a shelter, arrest of the perpetrator for domestic violence, and never having cohabited (Campbell et al., 2007; Juodis et al., 2004). However, there is a gap in the literature on such protective factors within older individuals. Such research could allow for a greater understanding of not only the risk factors involved in domestic homicide in the older population, but also what has been working as protective factors. Such protective factors could be elaborated on within the preventive measures and intervention efforts that were discussed earlier.

Conclusion

As previous research would suggest, there were several significant differences between domestic homicides in younger couples versus older couples. Younger couples had a significantly greater amount of risk factors present and more outside contacts. Older couples had more contact with health care professionals. Domestic homicide-suicide was found to be much more common in the older age group, and depression, prior suicide threats or attempts, and access to a firearm were established as the most salient risk factors for older individuals. The

overarching aim of this research was to gain a greater understanding surrounding domestic homicide in older individuals, in turn leading to more effective and appropriate strategies for the detection of risks and prevention of such tragedies.

The involvement of health care professionals and families, friends, and neighbours is vital to protecting older individuals. There is a greater need for public and professional awareness on domestic homicide in the older population. The development of specific prevention efforts and intervention strategies for older individuals is necessary. It is clear through the findings of this study that older individuals have different experiences altogether – from domestic violence, to illness, to help-seeking barriers. These unique factors need to be taken into consideration if domestic homicide is to be prevented. It is the hope that through examining what places older women in danger, the lives of future women can be saved.

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Appendix A

**Domestic Violence Death Review Committee
Office of the Chief Coroner of Ontario
Data Summary Form**

OCC Case #(s): _____ OCC Region: Central

OCC Staff: _____

Lead Investigating Police Agency:

Officer(s):

Other Investigating Agencies: _

Officers: _

VICTIM INFORMATION

***If more than one victim, this information is for primary victim (i.e. intimate partner)*Name

Gender	
Age	
Marital status	
Number of children	
Pregnant	
<i>If yes, age of fetus (in weeks)</i>	
Residency status	
Education	
Employment status	
Occupational level	
Criminal history	
<i>If yes, check those that apply...</i>	<input type="checkbox"/> Prior domestic violence arrest record <input type="checkbox"/> Arrest for a restraining order violation <input type="checkbox"/> Arrest for violation of probation <input type="checkbox"/> Prior arrest record for other assault/harassment/menacing/disturbance <input type="checkbox"/> Prior arrest record for DUI/possession <input type="checkbox"/> Juvenile record

	<input type="checkbox"/> Total # of arrests for domestic violence offenses <input type="checkbox"/> Total # of arrests for other violent offenses <input type="checkbox"/> Total # of arrests for non-violent offenses <input type="checkbox"/> Total # of restraining order violations <input type="checkbox"/> Total # of bail condition violations <input type="checkbox"/> Total # of probation violations
Family court history	
<i>If yes, check those that apply...</i>	<input type="checkbox"/> Current child custody/access dispute <input type="checkbox"/> Prior child custody/access dispute <input type="checkbox"/> Current child protection hearing <input type="checkbox"/> Prior child protection hearing <input type="checkbox"/> No info
Treatment history	
<i>If yes, check those that apply ...</i>	<input type="checkbox"/> Prior domestic violence treatment <input type="checkbox"/> Prior substance abuse treatment <input type="checkbox"/> Prior mental health treatment <input type="checkbox"/> Anger management <input type="checkbox"/> Other – specify _____ <input type="checkbox"/> No info
Victim taking medication at time of incident	
Medication prescribed for victim at time of incident	
Victim taking psychiatric drugs at time of incident	

Victim made threats or attempted suicide prior to incident	
Any significant life changes occurred prior to fatality?	
<i>Describe:</i>	
Subject in childhood or Adolescence to sexual abuse?	
Subject in childhood or adolescence to physical abuse?	
Exposed in childhood or adolescence to domestic violence?	

-- END VICTIM INFORMATION --

PERPETRATOR INFORMATION

***Same data as above for victim*

Gender	
Age	
Marital status	
Number of children	
Pregnant	
<i>If yes, age of fetus (in weeks)</i>	
Residency status	
Education	
Employment status	
Occupational level	
Criminal history	

<i>If yes, check those that apply...</i>	<input type="checkbox"/> Prior domestic violence arrest record <input type="checkbox"/> Arrest for a restraining order violation <input type="checkbox"/> Arrest for violation of probation <input type="checkbox"/> Prior arrest record for other assault/harassment/menacing/disturbance <input type="checkbox"/> Prior arrest record for DUI/possession <input type="checkbox"/> Juvenile record
	<input type="checkbox"/> Total # of arrests for domestic violence offenses <input type="checkbox"/> Total # of arrests for other violent offenses <input type="checkbox"/> Total # of arrests for non-violent offenses <input type="checkbox"/> Total # of restraining order violations <input type="checkbox"/> Total # of bail condition violations <input type="checkbox"/> Total # of probation violations
Family court history	
<i>If yes, check those that apply...</i>	<input type="checkbox"/> Current child custody/access dispute <input type="checkbox"/> Prior child custody/access dispute <input type="checkbox"/> Current child protection hearing <input type="checkbox"/> Prior child protection hearing <input type="checkbox"/> No info
Treatment history	
<i>If yes, check those that apply...</i>	<input type="checkbox"/> Prior domestic violence treatment <input type="checkbox"/> Prior substance abuse treatment <input type="checkbox"/> Prior mental health treatment <input type="checkbox"/> Anger management <input type="checkbox"/> Other – specify _____ <input type="checkbox"/> No info

Perpetrator on medication at time of incident	
Medication prescribed for perpetrator at time of incident	
Perpetrator taking psychiatric drugs at time of incident	
Perpetrator made threats or attempted suicide prior to incident	
Any significant life changes occurred prior to fatality?	
<i>Describe:</i>	
Subject in childhood or Adolescence to sexual abuse?	
Subject in childhood or adolescence to physical abuse?	
Exposed in childhood or adolescence to domestic violence?	

-- END PERPETRATOR INFORMATION --

INCIDENT

Date of incident	
Date call received	
Time call received	
Incident type	
Incident reported by	
Total number of victims <i>**Not including perpetrator if suicided</i>	

Who were additional victims aside from perpetrator?	
Others received non-fatal injuries	
Perpetrator injured during incident?	
Who injured perpetrator?	

Location of crime

Location of incident	
If residence, type of dwelling	
If residence, where was victim found?	

Cause of Death (Primary Victim)

Cause of death	
Multiple methods used?	
<i>If yes be specific ...</i>	
Other evidence of excessive violence?	
Evidence of mutilation?	
Victim sexually assaulted?	
<i>If yes, describe (Sexual assault, sexual mutilation, both)</i>	
Condition of body	
Victim substance use at time of crime?	
Perpetrator substance use at time of crime?	

Weapon Use

Weapon use	
If weapon used, type	
If gun, who owned it?	
Gun acquired legally?	
If yes, when acquired?	
Previous requests for gun to be surrendered/destroyed?	
Did court ever order gun to be surrendered/destroyed?	

Witness Information

Others present at scene of fatality (i.e. witnesses)?	
If children were present:	
Matthew Jr.	
Michelle	
Andrea	
What intervention occurred as a result?	

Perpetrator actions after fatality

Did perpetrator attempt/commit suicide following the incident?	
If committed suicide, how?	
Did suicide appear to be part of original homicide?	

How long after the killing did suicide occur?	
Was perpetrator in custody when attempted or committed suicide?	
Was a suicide note left? <i>If yes, was precipitating factor identified</i>	
Describe: <i>Perpetrator left note attached to envelope and within the envelope were photos of the victim and her boyfriend and correspondence regarding the purchase of a house in North Dakota and money transfers etc.</i>	
If perpetrator did not commit suicide, did s/he leave scene?	
If perpetrator did not commit suicide, where was s/he arrested/apprehended?	<i>(At scene, turned self in, apprehended later, still at large, other – specify)</i>
How much time passed between the fatality and the arrest of the suspect:	<i>(Hours, days, weeks, months, unknown, n/a – still at large)</i>

-- END INCIDENT INFORMATION --

VICTIM/PERPETRATOR RELATIONSHIP HISTORY

Relationship of victim to perpetrator	
Length of relationship	
If divorced, how long?	
If separated, how long?	
If separated more than a Month, list # of months	
Did victim begin relationship with a new partner?	

If not separated, was there evidence that a separation was imminent?	
Is there a history of separation in relationship?	
<i>If yes, how many previous separations were there?</i>	<i>(Indicate #, unknown)</i>
If not separated, had victim tried to leave relationship	
<i>If yes, what steps had victim taken in past year to leave relationship?</i> (Check all that apply)	<input type="checkbox"/> Moved out of residence <input type="checkbox"/> Initiated defendant moving out <input type="checkbox"/> Sought safe housing <input type="checkbox"/> Initiated legal action <input type="checkbox"/> Other – specify

Children Information

Did victim/perpetrator have children in common?	
If yes, how many children in common?	
If separated, who had legal custody of children?	
If separated, who had physical custody of children at time of incident?	
Which of the following best describes custody agreement?	
Did victim have children from previous relationship?	
<i>If yes, how many?</i>	<i>(Indicate #)</i>

History of domestic violence

Were there prior reports of domestic violence in this relationship?

Type of Violence? (*Physical, other*) _____

If other describe: _____

If yes, reports were made to: (Check all those that apply)

- ____ Police
- ____ Courts
- ____ Medical
- ____ Family members
- ____ Clergy
- ____ Friends
- ____ Co-workers
- ____ Neighbors
- ____ Shelter/other domestic violence program
- ____ Family court (during divorce, custody, restraining order proceedings)
- ____ Social services
- ____ Child protection
- ____ Legal counsel/legal services
- ____ Other – specify _____

Historically, was the victim usually the perpetrator of abuse? _____

If yes, how known? _____

Describe: _____

Was there evidence of escalating violence?

If yes, check all that apply:

- ____ Prior attempts or threats of suicide by perpetrator
- ____ Prior threats with weapon
- ____ Prior threats to kill
- ____ Perpetrator abused the victim in public
- ____ Perpetrator monitored victim's whereabouts
- ____ Blamed victim for abuse
- ____ Destroyed victim's property and/or pets
- ____ Prior medical treatment for domestic violence related injuries reported
- ____ Other – specify _____

-- END VICTIM-PERPETRATOR RELATIONSHIP INFORMATION --

SYSTEM CONTACTS**Background**

Did victim have access to working telephone? _____

Estimate distance victim had to travel to access helping resources? (KMs)

Did the victim have access to transportation? _____

Did the victim have a Safety Plan? _____

Did the victim have an opportunity to act on the Plan? _____

Agencies/Institutions

Were any of the following agencies involved with the victim or the perpetrator during the past year prior to the fatality? _____

***Indicate who had contact, describe contact and outcome. Locate date(s) of contact on events calendar for year prior to killing (12-month calendar)*

Criminal Justice/Legal Assistance:

Police (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Crown attorney (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Defense counsel (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Court/Judges (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Corrections (Victim, perpetrator or both)Describe: _____

Outcome: _____

Probation (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Parole (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Family court (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Family lawyer (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Court-based legal advocacy (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Victim-witness assistance program (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Victim Services (including domestic violence services)**Domestic violence shelter/safe house** (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Sexual assault program (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Other domestic violence victim services (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Community based legal advocacy (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Children services**School** (Victim, perpetrator, children or all)

Describe: (Did school know of DV? Did school provide counseling?)

Outcome: _____

Supervised visitation/drop off center (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Child protection services (Victim, perpetrator, children, or all)

Describe: _____

Outcome: _____

Health care services**Mental health provider** (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Mental health program (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Health care provider (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Regional trauma center (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Local hospital (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Ambulance services (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Other Community Services**Anger management program** (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Batterer's intervention program (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Marriage counselling (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Substance abuse program (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Religious community (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Immigrant advocacy program (Victim, perpetrator, or both)Describe: _____

Outcome: _____

Animal control/humane society (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Cultural organization (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Fire department (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

Homeless shelter (Victim, perpetrator, or both)

Describe: _____

Outcome: _____

-- END SYSTEM CONTACT INFORMATION --**RISK ASSESSMENT**

Was a risk assessment done?

If yes, by whom? _____

When was the risk assessment done? _____

What was the outcome of the risk assessment? _____

DVDRC COMMITTEE RECOMMENDATIONS

Was the homicide (suicide) preventable in retrospect? (Yes, no)

*If yes, what would have prevented this tragedy?*_____

What issues are raised by this tragedy that should be outlined in the DVDRC annual report?

Future Research Issues/Questions: _____

Additional comments: _____

Appendix B

Western
Research

Research Ethics

Western University Health Science Research Ethics Board
NMREB Delegated Initial Approval Notice**Principal Investigator:** Dr. Peter Jaffe**Department & Institution:** Education/Faculty of Education, Western University**NMREB File Number:** 106340**Study Title:** Domestic Homicide and Domestic Homicide-Suicide in the Older Population**Sponsor:****NMREB Initial Approval Date:** March 10, 2015**NMREB Expiry Date:** March 10, 2016**Documents Approved and/or Received for Information:**

Document Name	Comments	Version Date
Revised Western University Protocol		2015/02/28
Data Collection Form/Case Report Form		2015/02/28

The Western University Non-Medical Research Ethics Board (NMREB) has reviewed and approved the above named study, as of the NMREB Initial Approval Date noted above.

NMREB approval for this study remains valid until the NMREB Expiry Date noted above, conditional to timely submission and acceptance of NMREB Continuing Ethics Review.

The Western University NMREB operates in compliance with the Tri-Council Policy Statement Ethical Conduct for Research Involving Humans (TCPS2), the Ontario Personal Health Information Protection Act (PHIPA, 2004), and the applicable laws and regulations of Ontario.

Members of the NMREB who are named as Investigators in research studies do not participate in discussions related to, nor vote on such studies when they are presented to the REB.

The NMREB is registered with the U.S. Department of Health & Human Services under the IRB registration number IRB 00000941.

Ethics Officer, on behalf of Riley Hinson, NMREB Chair or delegated board member

Ethics Officer to Contact for Further Information

This is an official document. Please retain the original in your files.

Appendix C

1. History of violence outside of the family by perpetrator
2. History of domestic violence
3. Prior threats to kill victim
4. Prior threats with a weapon
5. Prior assault with a weapon
6. Prior threats to commit suicide by perpetrator
7. Prior suicide attempts by perpetrator
8. Prior attempts to isolate the victim
9. Controlled most of all of victim's daily activities
10. Prior hostage-taking and/or forcible confinement
11. Prior forced sexual acts and/or assaults during sex
12. Child custody or access disputes
13. Prior destruction or deprivation of victim's property
14. Prior violence against family pets
15. Prior assault on victim while pregnant
16. Strangulation of victim in the past
17. Perpetrator was abused and/or witnessed domestic violence as a child
18. Escalation of violence
19. Obsessive behaviour displayed by perpetrator
20. Perpetrator unemployed
21. Victim and perpetrator living common-law
22. Presence of stepchildren in the home
23. Extreme minimization and/or denial of spousal assault history
24. Actual or pending separation
25. Excessive alcohol and/or drug use by perpetrator
26. Depression – in the opinion of family/friend/acquaintance – perpetrator
27. Depression – professionally diagnosed – perpetrator
28. Other mental health or psychiatric problems – perpetrator
29. Access to or possession of any firearms
30. New partner in victim's life
31. Failure to comply with authority – perpetrator
32. Perpetrator exposed to/witnessed suicidal behaviour in family of origin
33. After risk assessment, perpetrator had access to victim
34. Youth of couple (18 to 24 years of age)
35. Sexual jealousy – perpetrator
36. Misogynistic attitudes – perpetrator
37. Age disparity of couple (age difference of 9 or more years)
38. Victim's intuitive sense of fear of perpetrator
39. Perpetrator threatened and/or harmed children

Appendix D*Risk Factors in the Younger and Older Population*

	Younger Population		Older Population		Total		χ^2
	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%	
History of Violence Outside of Family	28	(40.0)	4	(18.2)	32	(34.8)	3.58
History of Domestic Violence	55	(78.6)	10	(45.5)	65	(70.7)	10.67*
Prior Threats to Kill Victim	34	(48.6)	3	(13.6)	37	(40.2)	8.64*
Prior Threats with Weapon Against Victim	17	(24.3)	0	(0.0)	17	(18.5)	7.03
Prior Threats or Attempts to Commit Suicide	43	(61.4)	8	(36.4)	51	(55.4)	4.38
Prior Attempts to Isolate Victim	25	(35.7)	7	(31.8)	32	(34.8)	.150
Prior Attempts to Control Victim	25	(35.7)	5	(22.7)	30	(32.6)	1.91
Prior Hostage Taking	12	(17.1)	1	(4.5)	13	(14.1)	2.54
Prior Forced Sexual Acts	10	(14.3)	1	(4.5)	11	(12.0)	1.53
Prior Destruction of Victim's Property	9	(12.9)	2	(9.1)	11	(12.0)	.23
Strangulation of Victim in the Past	13	(18.6)	0	(0.0)	13	(14.1)	5.01
Perpetrator Exposed to Domestic Violence as Child	13	(18.6)	0	(0.0)	13	(14.1)	4.79
Perpetrator Physically Abused as Child	13	(18.6)	0	(0.0)	13	(14.1)	4.83
Escalation of Violence	33	(47.1)	6	(27.3)	39	(42.4)	3.18
Obsessive Behaviour	45	(64.3)	4	(18.2)	49	(53.3)	14.32**
Minimization or Denial of Abuse	15	(21.4)	2	(9.1)	17	(18.5)	1.95
Actual or Pending Separation	61	(87.1)	6	(27.3)	67	(72.8)	32.08**
Substance Abuse	26	(37.1)	6	(27.3)	32	(34.8)	1.01
Depression Evident	39	(55.7)	17	(77.3)	56	(60.9)	4.73
Diagnosed Depression	18	(25.7)	11	(50.0)	29	(31.5)	5.43
Other Psychiatric Illness	24	(34.3)	6	(27.3)	30	(32.6)	2.43
Access to a Firearm	21	(30.0)	7	(31.8)	28	(30.4)	.38
New Partner in Victim's life (Real or Perceived)	32	(45.7)	2	(9.1)	34	(37.0)	9.68*
Failure to Comply with Authority	23	(32.9)	1	(4.5)	24	(26.1)	8.14
Criminal History	44	(62.9)	6	(27.3)	50	(54.3)	10.04*
Access to Victim After Risk Assessment	11	(15.7)	0	(0.0)	11	(12.0)	7.48
Sexual Jealousy	30	(32.6)	5	(22.7)	35	(38.0)	4.32
Victim's Intuitive Sense of Fear	33	(47.1)	9	(40.9)	42	(45.7)	1.73
History of Threats or Abuse against Children	24	(34.3)	4	(18.2)	28	(30.4)	2.16

* $p < .05$ for a priori predictions or $p < .01$ for non-a priori predictions** $p < .001$

$$df = 2$$

Appendix E

Dominant Theme of Abuse

Example 1.

This case involved the homicide–suicide of a couple who had been married for approximately forty years and who had two children. The husband (age 60) stabbed his wife (age 57) to death and then himself.

The victim and perpetrator were known to have long-standing marital discord with issues around finances, health, gambling, and use of alcohol. The victim was a compulsive gambler and had dissipated their savings. The perpetrator was seen by others outside the home to be both dominating and verbally abusive toward the victim. He was very controlling. The perpetrator had retired ten years prior to the homicide-suicide and did not want the victim to have access to his money since she did not work and because of her gambling. However, the perpetrator had forbidden the victim to work. She was also not allowed to obtain a driver's license. The perpetrator told a neighbour openly that if the victim were to ever leave him and go after his pension, he would kill her.

The victim's mother saw black and blue marks on her daughter many times. She also said after her daughter's death that her daughter never complained to police, friends, or agencies; she kept the abuse to herself. In fact, a few weeks before the deaths, the victim's mother took pictures of the bruising as evidence of the perpetrator's abusive behaviour toward the victim.

A few days prior to the incident, the victim confided to a friend that she was planning to leave the perpetrator for good and divorce him. On the day of the deaths, the victim told the perpetrator she was leaving him. The victim's friend of over 40 years saw the perpetrator at approximately 1:30 p.m. that same day. The friend later told the police that the perpetrator was

very depressed and had been talking about suicide, which according to the friend was not unusual for him.

Example 2.

This case involved the homicide a 69-year-old female and the suicide of the perpetrator, her 69-year-old husband. The couple had been married for over 50 years and had two adult children. Over the span of their marriage, the perpetrator had reportedly controlled the victim's activities through restricting her contact with family and friends and strictly overseeing their finances.

A few months prior to the homicide-suicide, the victim fell down the stairs and broke her ankle. She told a hospital social worker that the perpetrator had pushed her down the stairs and she seemed ambivalent as to whether she should return home to the perpetrator. She was provided emotional support and referrals, and the social worker discussed a safety plan with the victim and her sons.

The victim returned to her son's house, and her son reported the incident to police. Upon further questioning, the victim stated that the perpetrator had grabbed her hair causing her to fall down the stairs. She indicated her fear of her husband and police subsequently charged him with assault causing bodily harm. Over the next month, the perpetrator attended his son's residence where he harassed the victim until his son arrived home. The perpetrator was arrested on the outstanding warrant for assault and released on an Officer-in-Charge Undertaking and a Promise to Appear. He was cautioned against communicating directly or indirectly with the victim.

Approximately one month later, the victim informed a Victim Services worker that she was living at her son's residence with her husband, and was no longer concerned that he would

assault her again. The Victim Services worker indicated that this living arrangement was a breach of the perpetrator's conditions and that he should speak with his lawyer. It is not clear whether police were informed about the breach.

The victim recanted earlier statements she had given about the assault, and both the victim and perpetrator indicated that they wanted to move back to their own home. The next day, the perpetrator called his son and the police and told them that he had killed the victim and was going to kill himself. Upon arrival at the home, police found the victim and the perpetrator both deceased with gunshot wounds consistent with a murder-suicide.

Dominant Theme of Health Issues

Example 1.

This case involved the homicide of an 85-year-old female by her 83-year-old husband, who subsequently committed suicide. The couple had been married for over 50 years and had two adult children. The victim was in poor health and was taking multiple medications. She had sustained a stroke about six years prior, leaving her with limited mobility. She also suffered from dementia, macular degeneration, thyroid problems, and high blood pressure. The perpetrator suffered various health issues including arthritis, headaches and ear problems that had been getting worse. Physician notes and interviews with family indicated that the perpetrator was suffering from depression.

With the victim's poor health and mobility problems, the perpetrator was her primary caregiver, preparing the meals and administering her medications. He had the help of his daughter, a cleaning person, and a home-care service that came in three times a week. Although the perpetrator found it difficult, he took good care of his wife and resisted the idea of sending

her to a nursing home. Several weeks prior to the homicide-suicide, several people in regular contact with the couple reported that the perpetrator appeared to be discouraged about life.

Example 2.

This case involved the homicide an 83-year-old female and the suicide of the perpetrator, her 77-year-old husband. The couple had been married for approximately 23 years, and each had adult children from previous relationships. By all accounts, the couple had a good marriage and there was no known history of domestic violence.

The victim suffered from a number of medical conditions including long-term low-grade depression and dementia, which appeared to be getting increasingly worse. The victim had recently had her driver's license suspended for medical reasons. This caused her to feel isolated and more dependent on the perpetrator. As the victim's dementia progressed, the perpetrator took an increasingly active role in looking after her.

The perpetrator was generally believed to be in good health. He had attempted suicide in the early 1980s following the break up of his first marriage. On several occasions, the perpetrator had let his family know that if he were to become incapacitated in any way, he would not want to be kept alive. He also inferred that he did not wish to be separated from the victim and that neither of them wanted to go into a nursing home. The perpetrator shot the victim in the head and then shot himself.

Brianna O'Neil

CURRICULUM VITAE

Education

M.A., Counselling Psychology with Thesis anticipated April 2016
Western University, London, ON
Thesis: "Domestic Homicide and Domestic Homicide-Suicide in the Older Population"
Supervisor: Dr. Peter Jaffe

B.A., Honours Psychology with Thesis, Minor in Women's Studies June 2013
University of Windsor, Windsor, ON
Thesis: "50 Shades of Degradation: Does Male Domination and Female Submission Content Affect Women's Attitudes and Beliefs?"
Supervisor: Dr. Charlene Senn

Clinical Experience

Partner Assault Response Program Co-Facilitator November 2015 – Present
Changing Ways, London, ON

Intern Counsellor September 2015 – Present
King's University College, London, ON

Crisis Line Volunteer February 2011 – July 2014
Distress Centre of Windsor-Essex County, Windsor, ON

Research Experience

Research Assistant January 2016 – Present
Centre for Research & Education on Violence Against Women & Children, Western University

Research Assistant September 2011 – July 2014
Healthy Relationships Research Lab, Department of Psychology, University of Windsor

Recognitions and Scholarships

- Social Sciences and Humanities Research Council (SSHRC) scholarship, *Western University*, 2015
- Entrance Scholarship, *Western University*, September 2014 & 2015
- Certificate of Academic Excellence, *Canadian Psychological Association*, June 2013

Presentations

O'Neil, B., & Senn, C. (2013). 50 shades of degradation: Does male domination and female submission affect women's attitudes and beliefs? Presented at the 74th Annual Canadian Psychological Association Conference, Quebec City, QC.