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Characteristics of Intimate Partner Homicide Perpetrators

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Abstract

Introduction. Approximately 88.000 cases of assault were reported to the Swedish police during 2010. Twenty-five percent of these cases were considered as violence against women. Intimate partner violence (IPV) is a worldwide issue and poses a major threat to women's health. In Sweden, 17 women are killed each year by an intimate partner. This study aimed at increasing the knowledge of perpetrators of intimate partner homicide (IPH), in terms of type of mental disorder and type of deadly violence exerted.

Method. A total of 49 forensic psychiatric investigations were obtained from the Swedish National Board of Forensic Medicine in Huddinge. Eighteen perpetrators of IPH were compared to 31 perpetrators of deadly violence in a non-intimate relationship. Comparisons were made by coding principal diagnoses as described in the forensic psychiatric investigations, and type of deadly violence exerted using the Cornell coding guide for violent incidents.

Results. Perpetrators of IPH were, to a greater extent, diagnosed with a dysphoric or borderline personality disorder (BPD), whereas perpetrators of deadly violence in a non-intimate relationship were significantly more often diagnosed with an antisocial personality disorder (ASPD). Perpetrators of IPH used more deadly violence with reactive features, whereas perpetrators of deadly violence in a non-intimate relationship used significantly more deadly violence with instrumental features.

Discussion. The results of this study are in agreement with previous research. In conclusion, perpetrators of IPH are more reactive in their deadly violence and less antisocial, in terms of being diagnosed with ASPD and previous convictions, compared to perpetrators of deadly violence in a non-intimate relationship. This may be helpful in terms of preventing future risk for IPV and IPH.

Key words: intimate partner homicide, mental disorder, violence, borderline personality disorder.

Introduction

Violence against women is considered a major issue and is therefore highly prioritized by the Swedish government (Prop. 2010/11: 45). Every third week in Sweden, a woman is killed by her current or former spouse (The Swedish National Council for Crime Prevention [NCCP], 2007). In the United States women constitute 70% of the victims killed by an intimate partner (Catalano, Smith, Snyder & Rand, 2009). These statistics demonstrate the widespread issue of violence against women. The present study aimed at increasing the knowledge regarding deadly violence against women, perpetrated within the context of an intimate relationship, focusing on the characteristics of the perpetrators.

Statistics of violent offences in general

Approximately 1.4 million crimes were reported to the Swedish police during 2010 (NCCP, 2011a). Among these, 12% (113.000) were considered as violent offences. Drawing on this statistic, NCCP estimated that the violent offences in Sweden had increased by one percent since 2009. In the United States, an estimate of 1.2 million violent offences was reported to the police during 2010 (U.S. Department of Justice, 2011). Respectively, in Canada 437.000 violent offences were reported to the Canadian police in 2010 (Canadian Centre for Justice Statistics, 2011). Although statistical comparisons between countries should be made with caution (Sarnecki, 2009), the presented statistics show that violent offences are widespread issues.

The most common violent offence in Sweden is constituted of assault (Ekbom, Engström & Göransson, 2006). According to the Swedish Penal Code, assault is defined as, by intent, inflicting physical injury, pain or illness to another individual. During 2010 approximately 88.000 cases of assault were reported to the Swedish police (NCCP, 2011a). The Swedish crime statistics for 2010 indicated that the total cases of assault against men remained constant compared to previous years (NCCP, 2011a). However, the reported cases of assault against women had increased by 4% during 2010.

Statistics of violence against women

Violence against women, where the perpetrator is a male, is an existing problem in every country, religion and class of society (Jerin & Moriarty, 2010; Johnson-Latham, 2008). The majority of cases of violence against women are perpetrated by a current or former spouse (Jerin & Moriarty, 2010; Tjaden & Thoennes, 1998). This type of violence is referred to as intimate partner violence [IPV] (Jerin & Moriarty, 2010). In Sweden, approximately 22.000 cases of violence against women are reported to the police every year (Belfrage & Strand, 2008). According to NCCP (2001), 80% of these cases can be defined as IPV. Similar numbers have been reported by Kropp and Hart (2000), who claimed that spousal abuse make up for nearly 80% of simple assault incidents reported to the police in Canada. However, it is recognized that a majority of the IPV that occurs is never reported to the police (Johnson-Latham, 2008). According to Sarnecki (2009), this is due to the fact that the tendency to report a criminal offence is affected by the relationship between the victim and the

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perpetrator. Generally, a close relationship between the perpetrator and the victim reduces the probability of reporting a crime.

Estimations of the prevalence of violence against women have been publicized worldwide (Lundgren, Heimer, Westerstrand & Kalliokoski, 2001; Tjaden & Thoennes, 1998; World Health Organization [WHO], 2002). According to the United Nations, it is estimated that approximately every third woman in the world will become a victim of a violent act sometime during her lifetime (WHO, 2002). In a national survey conducted in Sweden, the authors found that 46% of the women, since the age of 15 years, had experienced a violent act by a man (Lundgren et al., 2009). Tjaden and Thoennes (1998) estimated, based on data from a national telephone survey, that nearly 1.9 million women are physically assaulted each year in the United States. Tjaden and Thoennes (1998) also claimed that violence against women is most often perpetrated by men and that these men primarily are former or current intimate partners.

Characteristics of IPV and its consequences

IPV consists of behaviors ranging from physical to psychological violence (Lundgren et al., 2001). Physical violence includes hitting, pushing and kicking, whereas the psychological violence constitutes of control behaviors and verbal harassments, for example threats. Furthermore, according to NCCP (2009), violence against women is characterized by iteration and seriousness. Another characteristic of the violence is that it generally occurs in the woman's home (Eliasson, 2008). Nurius et al. (2003) demonstrated that women exposed to violence by an intimate male partner, were in risk of depression as a consequence of the violence. However, the consequences of IPV are not limited to the victimized individual. According to The National Board of Health and Welfare (2007), IPV is a major expense for the Swedish government costing at least 1.5 billion Swedish crowns annually. For example, IPV entail great expenditure for the Swedish health care system both directly and indirectly (Björck & Heimer, 2008). Directly through the medical care provided abused individuals and indirectly through prescription of medication and absence from work.

Although the previously described consequences are serious, the most severe outcome of violence is the death of the victim. WHO (2011) estimated that more than 500.000 people worldwide were victims of deadly violence in 2008. In Sweden, 336 cases of deadly violence were reported to the police in 2010 (NCCP, 2011b). However, 91 of these cases were, after police investigation, considered as actual crimes. This statistic of deadly violence has remained constant over the last twenty years (NCCP, 2001). Hence, approximately 100 individuals are victims of deadly violence in Sweden every year. The clear- up rate for homicides in Sweden is estimated to about 80%, and nearly 75% of the offenders are subjected to a forensic psychiatric investigation (Wahlund & Kristiansson, 2006).

The Swedish Penal Code and deadly violence

The Swedish Penal Code defines intentional deadly violence in terms of two crimes; manslaughter and homicide. Manslaughter is considered less severe compared to homicide and usually results in six to ten years in prison, whereas the punishment regarding homicide

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range from ten years to life imprisonment. However, if the perpetrator is considered severely mentally disordered, the court has the possibility to sentence him or her to forensic psychiatric treatment (Strand, Holmberg & Söderberg, 2009). To decide whether a perpetrator can be classified as suffering from a severe mental disorder or not, the Swedish courts consult forensic psychiatric expertise (Strand et al., 2009). This process encompasses two steps. The first step consists of a minor forensic psychiatric investigation. This screening is carried out by a forensic psychiatrist. The main purpose of this investigation is to determine whether the perpetrator should be the subject of a larger, more extensive, forensic psychiatric investigation. If the minor forensic psychiatric investigation indicates that further psychiatric investigation is necessary, the perpetrator must have admitted guilty to the crime or the existing evidence must be convincing, in order to conduct a major forensic psychiatric investigation (Strand et al., 2009). Each year, approximately 600 individuals undergo a forensic psychiatric investigation in Sweden (Official Reports of the Swedish Government, 2002:3). This constitutes a minority of the total number of individuals who each year is deprived of their liberty because of criminality (Holmberg & Kristiansson, 2005). However, 85% of the individuals who undergo a forensic psychiatric investigation each year in Sweden have committed severe criminality, such as manslaughter or homicide (Strand et al., 2009).

Deadly violence against women

Intimate partner homicide (IPH) is generally carried out by a male perpetrator and the victim is most often a woman (Catalano et al., 2009; NCCP, 2007). In Sweden, approximately 17 women are annually victims of IPH perpetrated by a current or former male partner (Belfrage & Rying, 2004). Catalano et al. (2009) concluded that 1.640 women were victims of IPH in the United States during 2007. This number illustrates that women constitute 70% of the victims killed by an intimate partner in the United States. Catalano et al. (2009) also stated that men are the perpetrator in the majority of the IPH cases. Consequently, an intimate male partner constitutes the greatest risk of homicide for a woman. In an extensive report published by the United Nations Office on Drugs and Crime [UNODC] (2011) it was demonstrated that approximately 35% of all homicide cases with female victims in Europe were perpetrated by a current or former spouse. Similar results have been found in studies from Australia, Canada, Israel and South Africa, where between 40% and 70% of the homicide cases with a female victim were classified as intimate partner-related (UNODC, 2011).

Reasons as to why an IPH is committed have been sought by several researchers (Belfrage & Rying, 2004; Dobash & Dobash, 2011; Thomas, Dichter & Matejkowski, 2011). Dobash and Dobash (2011) found that there were certain underlying psychological traits among the perpetrators who had committed an IPH that were more evident, compared to perpetrators who had committed a homicide in a non-intimate context. These traits were possessiveness, jealousy and estrangement. Furthermore, Belfrage and Rying (2004) investigated motives for intimate partner homicide and concluded that when a separation occurred between the victim and the perpetrator, the risk of IPH were elevated. In general, the risk of IPV increases when a conflict arises in a relationship, especially if the conflict leads to a separation (Kropp, Hart & Belfrage, 2008; NCCP, 2007). In combination with the psychological traits among perpetrators linked to IPH found in the study by Dobash and Dobash (2011), such as

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possessiveness or jealousy, the risk of IPH is elevated. For example, if a man is extremely jealous and possessive towards his partner and the woman decides to separate, the risk of IPH may be imminent. Consequently, NCCP (2007) concluded that in 60% of all IPH cases in Sweden between 1990 and 2004, jealousy and separation were expressed as motives.

Instrumental and reactive deadly violence

According to Porter and Woodworth (2006) (see also Woodworth & Porter, 2002 and Thijssen & De Ruiter, 2011) a distinction can be made between two types of deadly violence; instrumental and reactive deadly violence. The latter is characterized by impulsivity and emotionality as a reaction to a provocation, whereas the former is characterized by premeditation, awareness and motivation to an external goal (e.g., drugs or money). The distinction between reactive and instrumental violence was originally introduced by Feshbach (1964), who divided violence into two types; hostile (i.e., reactive) and instrumental. Feshbach (1964) claimed that instrumental violence is exerted to achieve nonaggressive goals, whereas reactive violence is exerted with the main purpose of inflicting injury to a person or an object. This distinction of violent behavior has mainly been used by both Bandura (1978) and by Berkowitz (1993) in developing their theories of violent behavior.

Bandura (1978) claimed that violent behavior is primarily used as a mean to obtain external goals and rewards (i.e., instrumental violence). This claim is based on Bandura's social learning theory (1978) which proposes that certain behavior is more likely to be repeated if the reward is perceived as favourable from the individual's point of view. Bandura (1978) claimed that violent behavior is learned throughout childhood and adolescence by imitating the behavior of other individuals. If an individual learns that a certain violent behavior will result in a specific outcome (e.g., using violence to obtain money), this aggressive behavior has a high probability of reoccurring whenever the external goal is desired. In contrast, Berkowitz (1993) argued that violent behavior is primarily the result of aversive events. More specifically, unpleasant experiences produce negative affect which triggers angry and hostile emotions, thoughts and memories. Berkowitz (1993) claimed that individuals who experience angry emotions and thoughts are more prone to act violently when exposed to an insult or a provocation. According to Berkowitz (1993) these feelings and thoughts activate our inherent fight and flight reaction. Thus, violent behavior is a reaction to a perceived threat or a dangerous situation (i.e., reactive violence). For example, a homicide where the perpetrator stabs the victim as a response to a verbal provocation is considered as reactive deadly violence (Porter & Woodworth, 2006). On the contrary, a homicide where the perpetrator after careful considerations carries out a homicide to obtain drugs or money is considered as instrumental deadly violence.

It has been demonstrated that the type of deadly violence has a connection with the victim-perpetrator relationship (Last & Fritzson, 2005). Last and Fritzson (2005) concluded that cases of homicides where the victim was unknown to the perpetrator were characterized by instrumental deadly violence. However, in cases where the victim was known to, or in a relationship with, the perpetrator, reactive deadly violence was significantly more common. The reactive deadly violence exerted in cases where the perpetrator and the victim were

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known to each other, was characterized by brutality and excessive violence. This type of reactive violence may often be the result of a provocation or the perpetrator's loss of control (Fritzon & Garbutt, 2001).

Mental disorder and deadly violence

Belfrage and Rying (2004) found that perpetrators who had committed IPH were more likely to have a mental disorder. These perpetrators were to a greater extent classified with a dysphoric diagnosis (i.e., depression) or a borderline personality disorder [BPD], which manifests in traits such as aggression, impulsivity and a fear of being abandoned (Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition [DSM-IV], American Psychiatric Association [APA], 2002). The fear of being abandoned often results in the individual becoming emotionally unstable and depressive. In many cases the emotional instability can lead to self-harming behaviors, for example suicide attempts. According to Belfrage and Rying (2004), suicidal ideation is a major risk factor for IPV in general and IPH. Furthermore, the authors concluded that nearly 80% of the perpetrators who committed IPH could be classified with a mental disorder. In line with these results, Dixon, Hamilton- Giachritsis and Browne (2008) found that a high proportion of the perpetrators of IPH in their study showed symptoms of BPD or dysphoria.

Findings of the previously mentioned studies (Belfrage & Rying, 2004; Dixon et al., 2008), support the theory that there is a link between mental disorder and deadly violence. According to Strand et al. (2009), individuals diagnosed with a mental disorder are in greater risk of committing violent offences. It is estimated that individuals with a mental disorder is up to nine times more likely to commit a violent offence, compared to individuals without a mental disorder. For example, Fazel and Grann (2004) found that individuals, who had, at some point, been diagnosed with a mental disorder, had committed 50% of the most severe violent offences, namely manslaughter and homicide. The study was based on 324.000 registered violent offences in Sweden between the years 1988-2000.

Gilbert and Daffern (2011) concluded that, among mental disorders, antisocial personality disorder [ASPD] was highly predictive of violent behavior. ASPD is characterized by impulsivity, lack of empathy and an antisocial lifestyle (APA, 2002). Furthermore, according to Hiscoke, Långström, Ottosson and Grann (2003), individuals diagnosed with ASPD were more inclined to perpetrate severe violent crimes, such as homicide or manslaughter. Findings from the MacArthur study also showed that there was a link between mental disorder, mainly personality disorders and substance dependence, and violence (Monahan, 2002). The study included more than one thousand civil patients from mental health facilities in the United States. However, it is important to note that it may not be as simple as ascribing solely the mental disorder to the elevated risk for violent offences (Strand et al., 2009). Other contributing factors that may explain the violent behavior of mentally disordered perpetrators are for example alcohol and drug abuse or poverty (The Swedish Council on Health Technology Assessment, 2005).

Relevance of the study

In order to facilitate preventing IPV in general, including IPH, risk assessments based on the Spousal Assault Risk Assessment Guide: Short Version [SARA:SV] (Kropp et al., 2008) are commonly used in the legal context, such as within police departments (Belfrage et al., 2011). SARA: SV consists of ten risk factors regarding the suspected perpetrator and five risk factors regarding the victim's vulnerability. Risk factors 1 to 10 concerns the perpetrators history of IPV and psychosocial adjustment, whereas risk factors 11 to 15 concerns victim vulnerability factors (see Table 1 for a detailed description of SARA:SV). The risk factors are coded as either *yes*, *no* or *partially present*. Previous research concerning IPH has shown that certain risk factors included in SARA: SV are more important when assessing the risk of IPH (Kropp et al., 2008). Among these risk factors, mental disorders are considered one of the most important, especially personality disorders which are characterized by impulsivity and aggression. Previous studies have shown that BPD is perhaps the most important of these mental disorders, regarding risk of IPH (Belfrage & Rying, 2004; Dixon et al., 2008). Furthermore, increasing the knowledge of how IPH is exerted, in terms of type of violence, may assist in preventing IPH. Knowing the characteristics of IPH, in terms of the type of deadly violence, may help the risk assessor in preventing IPH. For example, in cases where a woman is being abused by an intimate partner, the type of violence exerted may indicate the potential risk of IPH.

Table 1

SARA: SV Risk factors (Kropp et al., 2008)

Perpetrator Risk Factors

1. Violent acts
2. Violent threats or thoughts
3. Escalation
4. Violations of court orders
5. Violent attitudes

Psychosocial Adjustment

6. General criminality
7. Intimate relationship problems
8. Employment problems
9. Substance use problems

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10. Mental health problems

Victim Vulnerability Factors

11. Inconsistent behavior and/or attitude toward perpetrator

12. Extreme fear of perpetrator

13. Inadequate access to resources

14. Unsafe living situation

15. Personal problems

However, considering the massive extent of IPV (see for example Catalano et al., 2009 and Tjaden and Thoennes, 1998) in combination with the high dark figures (Belfrage & Rying, 2004), cases of IPH are inevitable to occur. Therefore, an efficient way of allocating resources in a police investigation may be by narrowing the number of suspected perpetrators. This may be done by analysing the type of deadly violence exerted, which has been illustrated by Last and Fritzon (2005) and Woodworth and Porter (2002). Last and Fritzon (2005) found that perpetrators of IPH were more prone to use reactive deadly violence, whereas perpetrators of homicides within a non-intimate relationship more often used instrumental deadly violence. Hence, in cases of homicides where the perpetrator is unknown the type of deadly violence used may indicate potential perpetrators.

Aim

The aim of this study was to compare perpetrators who had exerted IPH, with perpetrators who had exerted deadly violence in a non-intimate relationship. More specifically,

- How did the perpetrators differ in type of mental disorder?
- How did the perpetrators differ in terms of type of deadly violence used?

Hypotheses

Mental disorder

Belfrage and Rying (2004) and Dixon et al. (2008) found that a high proportion of the perpetrators of IPH in their studies could be classified as dysphoric or with BPD. Drawing on these results, we expected to find similar results. Hence, IPH perpetrators were expected to, to a greater extent, be diagnosed with depression or BPD, compared to the perpetrators of manslaughter or homicide within a non-intimate relationship. Furthermore, Belfrage and Rying (2004) found that perpetrators of IPH could be considered as less psychopathic (i.e., displaying less criminal attributes, such as frequent antisocial behavior, attitudes and lack of empathy and remorse) compared to perpetrators of deadly violence in a non-intimate relationship. Consequently, the IPH perpetrators in this study are expected to be less 'antisocial' compared to perpetrators of deadly violence in a non-intimate relationship.

Type of deadly violence

Last and Fritzson (2005) found that perpetrators who knew or were in a relationship with their victim were more prone to use reactive deadly violence. On the contrary, in cases where the victim was unknown to the perpetrator, instrumental deadly violence was more often used. Consequently, the results of this study were expected to support the results of Last and Fritzson (2005). Hence, perpetrators of IPH were expected to have exerted more reactive deadly violence compared to perpetrators of manslaughter or homicide within a non-intimate relationship.

Method

Participants

The National Board of Forensic Medicine in Huddinge offered access to 50 forensic psychiatric investigations, which met the inclusion criteria of the study. These criteria were that the investigations concerned deadly violence perpetrated by a man and were either perpetrated within an intimate partner context or a non-intimate relationship. Considering the fact that men constitute the overwhelming majority of the IPH offenders (Belfrage & Rying, 2004; Catalano et al., 2009; NCCP, 2007) and offenders of deadly violence in a non-intimate relationship (Fazel & Grann, 2004; NCCP, 2011b), this study focused solely on male perpetrators. The definition of an intimate relationship was a relation in which the perpetrator and the victim had an intimate sexual relationship (Kropp et al., 2008). Furthermore, the term deadly violence included manslaughter and homicide.

The forensic psychiatric investigations consisted of those investigations carried out between the years 2007 and 2010 in Huddinge, Stockholm. Of the 50 investigations that originally were offered, one participant was excluded due to being found not guilty by a higher court instance. This resulted in a sample of 49 perpetrators of deadly violence. These perpetrators were divided into two mutually exclusive groups; perpetrators of IPH and perpetrators of deadly violence in a non-intimate relationship. To be classified as a perpetrator of IPH the deadly violence had to have been exerted within an intimate relationship. Originally, the investigations were divided into the two previously mentioned groups by a representative from the National Board of Forensic Medicine in Huddinge. This procedure was controlled by both authors before collecting the data. This procedure resulted in 18 perpetrators in the IPH group and 31 perpetrators in the group of perpetrators of deadly violence in a non-intimate relationship.

By the time they were subjected to the forensic psychiatric investigation, the perpetrators' ($N=49$) mean age was 38.3 years ($SD = 15.8$; $Range = 16 - 81$ years). Twenty-five (51%) perpetrators in the sample had a foreign background. Overall, 44 (89.8%) perpetrators were found guilty of homicide, whereas 5 (10.2%) perpetrators were found guilty of manslaughter. Twelve (24.5%) perpetrators were considered severely mentally disordered and therefore sentenced to forensic psychiatric treatment. Thirty-seven (75.5%) perpetrators were not considered severely mentally disordered and therefore sentenced to imprisonment.

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Material

The study was based on forensic psychiatric investigations obtained from the Swedish National Board of Forensic Medicine in Huddinge. A forensic psychiatric investigation consists of four separate investigations and is approximately 20 to 30 pages in extent (Strand et al., 2009). Its main purpose is to decide whether an individual is considered severely mentally disordered and if the required conditions are met for sentencing the individual to forensic psychiatric treatment. The four investigations consists of; a psychological profile of the client, a social investigation regarding the client, a forensic psychiatric investigation of the client and a report of the client's behavior during his stay at the forensic clinic (The National Board of Health and Welfare, 1996:14). Each of the investigations is performed by experts in their respective fields. For example, a psychologist is responsible for the psychological profile whereas a forensic social investigator is responsible for the social investigation. The psychological profile describes the individual's psychological functioning, in terms of traits such as intelligence. The social investigation describes the individual's life from childhood to the present date and includes a description of the individual's social networks and social functioning. The forensic psychiatric investigation concerns the individual's mental health and the forensic psychiatrist is responsible for diagnosing the individual. The individual's behavior during his stay at the forensic psychiatric clinic is reported by nursing staff that, on a daily basis, are in contact with the client.

To be able to code the type of deadly violence in each case, the verdicts were requested and therefore attached to the forensic psychiatric investigations. Since this included access to existing appeals, the authors were able to conclude whether the perpetrator ultimately was found guilty, thus eliminating the possible bias of the perpetrator being found not guilty by a higher court instance.

Procedure

The variables in each case were coded separately by each author. Eight forensic psychiatric investigations were randomly selected for dual coding by the authors. Initially, the eight forensic psychiatric investigations were coded separately by each author and then compared. In case of different coding, an agreement was made after a joint discussion. A test of inter-rater reliability showed that Kappa ranged between 0.60 – 1.00 for the categorical variables (i.e., foreign background, severely mentally disordered, diagnosis on Axis I and II, type of deadly violence, intimate partner and years in prison). Intraclass correlation coefficient (ICC) was 1.00 for the variables with a ratio scaling level (i.e., age by the time of the forensic psychiatric investigation, previous conviction and previous minor or major forensic psychiatric investigation). The variables were coded as follow;

Age by the time of the forensic psychiatric investigation. Coded in discrete numbers.

Foreign background. Coded as either yes or no using data from the forensic psychiatric investigation. An individual was considered having a foreign background if he, or at least one of his parents, were born in another country than Sweden.

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Legal consequence of the crime according to the forensic psychiatric investigation. Coded as either imprisonment or forensic psychiatric treatment. In cases of imprisonment, the exact length of the conviction was coded.

Previous convictions. Coded as number of previous convictions according to the forensic psychiatric investigation.

Previous minor forensic psychiatric investigations. Coded as number of previous minor forensic psychiatric investigations.

Previous major forensic psychiatric investigations. Coded as number of previous major forensic psychiatric investigations.

Mental disorder. Coded as type of mental disorder diagnosed, according to DSM-IV (APA, 2002). The principal diagnosis, as defined by the forensic psychiatric investigation, was coded.

Type of deadly violence. Coded as the degree of instrumentality or reactivity regarding the violence, using the Cornell Coding guide for violent incidents: instrumental versus hostile/reactive aggression (Cornell, 1996). In cases where the perpetrator had killed more than one victim, the most recent killing was coded. In accordance with previous research (see for example Woodworth & Porter, 2002), the type of deadly violence was coded using the four categories described in the Cornell coding guide for violent incidents (i.e., instrumental, instrumental/reactive, reactive/instrumental and reactive). The Cornell coding guide for violent incidents is a frequently used instrument for coding the type of violence previously described (see for example Laurell, Belfrage & Hellström, 2010 and Woodworth & Porter, 2002). Furthermore, tests of the inter-rater reliability for the Cornell coding guide have been demonstrated to be high (ICC = .98 and .93) (Cornell, 1996).

Consult Appendix I for the guide constructed for coding the variables.

Ethical considerations

The study is based on forensic psychiatric investigations, which is comprised of sensitive personal information, such as an individual's mental health and criminal record. These investigations are therefore encumbered with secrecy and are not available to the public (The National Board of Health and Welfare, 1996:14). The authors of this study had requested access to the forensic psychiatric investigations from the Swedish National Board of Forensic Medicine in Huddinge, which was approved by their Medical Director, Marianne Kristiansson. The coding of the data took place in the forensic psychiatric department in Huddinge, since the forensic psychiatric investigations are strictly forbidden to leave the department. The obtained information used as the result of this study was made unidentifiable, excluding any personal information which could compromise a perpetrator's identity. Hence, total confidentiality was guaranteed. Furthermore, the aim and the procedure of this study were approved by responsible lecturers at the Mid Sweden University in Sundsvall.

Statistical analysis

Concerning the descriptive statistics included in this study, Student's t-test for independent groups was performed when the scaling of the data was ratio (Pagano, 2010). The Student's t-test for independent groups was therefore administered to analyze group differences in terms of mean age by the time of the forensic psychiatric investigation and mean previous convictions. The Student's t-test for independent groups was administered due to the fact that the scaling of the data was ratio and that the two groups were mutually exclusive (i.e., perpetrators of IPH and perpetrators of deadly violence in a non-intimate relationship). Furthermore, a one way ANOVA were carried out to analyze whether age affected the type of deadly violence used by the perpetrators. This was possible since the one way ANOVA makes an overall comparison of the four groups (i.e., instrumental, instrumental/reactive, reactive/instrumental and reactive), and indicates whether the means of these groups differ significantly (Pagano, 2010).

To test the hypothesis of mental disorders, thus comparing the two groups of homicide perpetrators, χ^2 -tests were administered. Since the scaling of the data was nominal, Pagano (2010) states that the χ^2 -test is appropriate. The χ^2 -test was also used to compare the two groups regarding the type of deadly violence, due to the fact that the scaling of the data is nominal. In cases where the requirements of the χ^2 -test were violated, Fisher's Exact Test was used. Additionally, χ^2 -tests were also carried out to compare perpetrators of IPH and perpetrators of deadly violence in a non-intimate relationship on descriptive variables in this study (i.e., ethnicity, crime committed, legal consequence and previous contacts with forensic psychiatry). Moreover, logistic regressions were performed to analyze the predictive capacity of the variables age by the time of the forensic psychiatric investigation, type of deadly violence, foreign background, principal diagnosis on Axis I and principal diagnosis on Axis II, using relationship status (i.e., intimate partner or not) as the dependent variable. Furthermore, tests to measure the inter-rater reliability were performed (i.e., ICC and Kappa). A correlation analysis was performed with the phi coefficient (Φ) in order to analyze the association between type of deadly violence and IPH. The statistical analyses were calculated using the Statistical Package for the Social Sciences [SPSS], version 19, which is computer-based software for statistical calculations (Pallant, 2010).

Results

Descriptive statistics

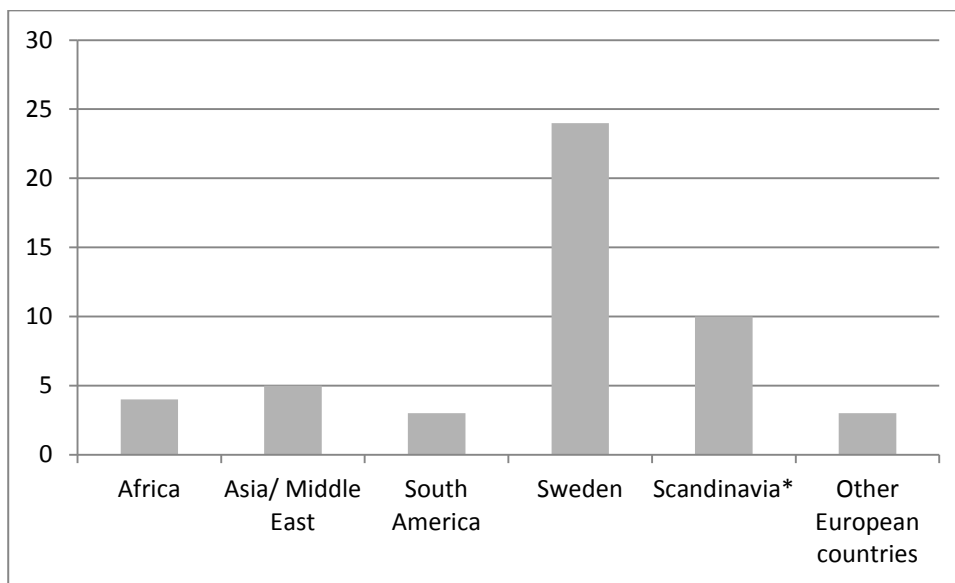
Age. In the IPH group, the mean age by the time of the forensic psychiatric investigation was 46.2 years ($SD = 17.0$; $Range = 19 - 81$ years), compared to 33.8 years ($SD = 13.3$; $Range = 16 - 66$ years) in the group of perpetrators of deadly violence in a non-intimate relationship. There was a statistically significant difference between the two groups, regarding age by the time of the forensic psychiatric investigation ($t(47) = 2.82$, $p = .007$). By the time of the forensic psychiatric investigation, perpetrators of IPH were significantly older than perpetrators of deadly violence in a non-intimate relationship.

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Ethnicity. Seventeen (34.7%) of the perpetrators were born in another country than Sweden and 32 (65.3%) perpetrators were born in Sweden. Of the 32 perpetrators born in Sweden, 8 had at least one parent who was born in another country than Sweden. In the IPH group, 11 (61.1%) perpetrators had a foreign background, compared to 14 (45.2%) perpetrators in the group of perpetrators of deadly violence in a non- intimate relationship. There was no statistically significant difference between the two groups concerning foreign background ($\chi^2(1) = 0.36, p = .549$). For a detailed description of the origin among the perpetrators, see Figure 1.

Figure 1

Origin of the perpetrators (N= 49), in numbers



* Sweden excluded.

Crime committed. In the sample (N= 49), there were statistically significantly more perpetrators who were convicted of homicide than manslaughter ($\chi^2(1) = 31.04, p = .000$). Forty-four (89.8%) perpetrators were found guilty of homicide, whereas 5 (10.2%) perpetrators were found guilty of manslaughter. In the IPH group, 17 (94.4%) perpetrators were convicted of homicide and 1 (5.6%) perpetrator was convicted of manslaughter. In the group of perpetrators of deadly violence in a non- intimate relationship, 27 (87.1%) perpetrators were convicted of homicide, whereas the remaining 4 (12.9%) perpetrators were convicted of manslaughter. The groups did not differ statistically significantly concerning the number of perpetrators convicted of homicide ($\chi^2(1) = 2.27, p = .132$) or manslaughter ($\chi^2(1) = .67, p = .639$).

Legal consequence. In the IPH group, 4 (22.2%) perpetrators were considered severely mentally disordered, compared to 8 (25.8%) perpetrators in the group of perpetrators of deadly violence in a non- intimate relationship. This difference was not statistically significant ($\chi^2(1) = .08, p = 1.00$). Eleven (22.4%) perpetrators were sentenced to life imprisonment, 3 (6.1%) perpetrators were sentenced to more than 10 years in prison, and 21 (42.9%)

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perpetrators were sentenced to 10 years imprisonment or less. The remaining 2 (4.1%) perpetrators were sentenced to juvenile institutionalization.

Past criminality. Seventeen (34.7%) perpetrators had no previous registered convictions. The mean number of prior convictions in the sample was 3.8 ($SD = 5.0$; $Range = 0 - 20$). Twenty-seven (55.1%) perpetrators had 10 or less than 10 prior convictions. The remaining 5 (10.2%) perpetrators had more than 10 previous convictions. Perpetrators of IPH had a mean of 2.3 ($SD = 2.9$) prior convictions, whereas perpetrators of homicide within a non-intimate relationship had a mean of 4.7 ($SD = 5.8$) previous convictions. This difference was not statistically significant ($t(47) = -1.64, p = .108$).

Previous contacts with forensic psychiatry. Forty (81.7%) perpetrators had previously not been in contact with forensic psychiatry, in terms of previously being subjected to a minor forensic psychiatric investigation or a major forensic psychiatric investigation. Eight (16.3%) perpetrators had 1 prior minor forensic psychiatric investigation and 1 (2%) perpetrator had two prior minor forensic psychiatric investigations. Six (12.2%) perpetrators had previously been subjected to a major forensic psychiatric investigation. In the group of IPH perpetrators, 4 (22.2%) had been subjected to a previous minor forensic psychiatric investigation, whereas 6 (12.2%) perpetrators of deadly violence in a non-intimate relationship had previously been subjected to a minor forensic psychiatric investigation. This difference between the groups was not statistically significant ($\chi^2(1) = 1.24, p = .653$). In the IPH group, 3 (16.7%) perpetrators had previously been subjected to a major forensic psychiatric investigation, compared to 3 (9.7%) perpetrators in the group of deadly violence in a non-intimate relationship. This difference between the groups, concerning being previously subjected to a major forensic psychiatric investigation, was not statistically significant ($\chi^2(1) = 1.81, p = .588$).

Differences in terms of mental disorder

There was a difference, although not statistically significant, between the two groups of perpetrators concerning distribution of principal diagnoses on Axis I ($\chi^2(1) = 0.73, p = .393$) and Axis II ($\chi^2(1) = 2.67, p = .102$). Nine (50%) perpetrators of IPH were diagnosed with an Axis I diagnosis, whereas the corresponding number in the group of perpetrators of deadly violence in a non-intimate relationship was 13 (42%). Furthermore, in the group of IPH perpetrators, 8 (44%) were diagnosed with an Axis II personality disorder, compared to 18 (58%) in the group of perpetrators of deadly violence in a non-intimate relationship. One perpetrator in the IPH group was not diagnosed with a mental disorder. Axis I contains psychotic disorders, for example depression and schizophrenia, whereas Axis II contains personality disorders, such as ASPD and BPD (APA, 2002).

The most common principal Axis I diagnosis in the sample was schizophrenia ($n = 5$). The most frequent principal Axis I diagnosis in the IPH group was depression ($n = 2$) and maladaptive stress reaction ($n = 2$), compared to schizophrenia ($n = 4$) and autistic disorders ($n = 3$), which were the most prevalent Axis I disorders in the group of perpetrators of deadly violence in a non-intimate relationship. The most common principal Axis II diagnosis in the sample was ASPD ($n = 20$), followed by BPD ($n = 5$). In the IPH group, 5 (29.2%) perpetrators

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were diagnosed with ASPD and 2 (11.8%) perpetrators were diagnosed with a BPD. In the group of perpetrators of deadly violence in a non-intimate relationship, 15 (48.4%) perpetrators were diagnosed with ASPD and 3 (9.7%) perpetrators were diagnosed with BPD. There were statistically significantly more perpetrators with ASPD in the group of perpetrators of deadly violence in a non-intimate relationship, compared to the group of IPH perpetrators ($\chi^2 (1) = 5.00, p = .025$). For a detailed description of the distribution of principal diagnoses in the sample, see Table 2.

Table 2

Distribution of principal diagnoses in the forensic psychiatric investigations among perpetrators of intimate partner homicide and perpetrators of deadly violence in a non-intimate relationship (n= 48)

	IPH (n= 17 ^a)		Non- IPH (n= 31)	
	%	n	%	n
ADHD ^b	5.9	1	3.2	1
Alcohol/ drug dependence	5.9	1	6.5	2
Antisocial personality disorder (ASPD)	29.2	5	48.4	15
Autism spectrum disorders	0.0	0	9.7	3
Borderline personality disorder (BPD)	11.8	2	9.7	3
Delusional syndrome	5.9	1	0.0	0
Depression	11.8	2	0.0	0
Maladaptive stress reaction	11.8	2	6.5	2
Schizophrenia	5.9	1	12.8	4
Psychosis	5.9	1	3.2	1
Personality disorder NOS ^c	5.9	1	0.0	0

Note. IPH= Intimate partner homicide, Non-IPH= Deadly violence in a non- intimate relationship.

a One perpetrator excluded due to no diagnosis.

b Attention Deficit Hyperactivity Disorder.

c Personality disorder not otherwise specified.

Differences in terms of type of deadly violence used

Age did not differ significantly among the perpetrators concerning the type of deadly violence used ($F(3) = .54, p = .659$). This means that age did not differ significantly between perpetrators who had committed instrumental, instrumental/reactive, reactive/instrumental or reactive deadly violence.

In the IPH group, the distribution of type of deadly violence was; *instrumental* 1 (5.5%), *instrumental/reactive* 5 (27.8%), *reactive/instrumental* 9 (50%) and *reactive* 3 (16.7%). In the group of perpetrators of deadly violence in a non-intimate relationship the distribution of type of deadly violence was; *instrumental* 21 (67.7%), *instrumental/reactive* 2 (6.5%), *reactive/instrumental* 1 (3.2%) and *reactive* 7 (22.6%). There was a statistically significant difference between the two groups concerning the use of instrumental deadly violence by the time of the deadly violence (see Table 3). Perpetrators of deadly violence in a non-intimate relationship exerted significantly more deadly violence with instrumental features, compared to perpetrators of IPH. In the IPH group, 12 (66.7%) perpetrators exerted deadly violence with reactive features, compared to 8 (25.8%) perpetrators of deadly violence in a non-intimate relationship. This difference was not statistically significant (see Table 3).

Table 3

Statistical differences between the groups of perpetrators of intimate partner homicide and perpetrators of deadly violence in a non-intimate relationship, concerning type of deadly violence exerted % (N= 49)

	IPH <i>n</i> = 18	Non- IPH <i>n</i> = 31	χ^2	<i>df</i>	<i>p</i>
Instrumental ^a	33.3 (<i>n</i> = 6)	74.2 (<i>n</i> = 23)	9.97	1	.002
Reactive ^b	66.7 (<i>n</i> = 12)	25.8 (<i>n</i> = 8)	0.80	1	.371

Note. IPH= Intimate partner homicide, Non-IPH= Deadly violence in a non- intimate relationship.

a Instrumental and instrumental/reactive.

b Reactive and reactive/instrumental.

A logistic regression analysis was performed with relationship status (i.e., intimate partner or not) as the dependent variable and age by the time of the forensic psychiatric investigation, type of deadly violence and foreign background as predictor variables. A total of 49 cases were analyzed and the model was significantly reliable ($\chi^2(3) = 14.47, p = .002$). Of the three included predictor variables, type of deadly violence was significantly predictive of IPH ($p = .014$). This means that a higher degree of instrumental deadly violence decreased the likelihood of IPH. Overall, 73.5% of the predictions were accurate. The model explained between 25.6% and 34.9% of the variance in relationship status.

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Another logistic regression was performed with relationship status as the dependent variable and type of deadly violence, diagnosis on Axis I and diagnosis on Axis II as predictor variables. However, in this second logistic regression analysis, type of deadly violence was classified as dichotomous, that is, either instrumental (i.e., instrumental and instrumental/reactive) or reactive (i.e., reactive and reactive/instrumental). A total of 49 cases were analyzed and the model was significantly reliable ($\chi^2(3) = 9.95, p = .019$). Of the three included predictor variables, type of deadly violence was significantly predictive of IPH ($p = .009$). Hence, a higher degree of instrumental features, characterizing the deadly violence, decreased the likelihood of IPH. Overall, 71.4% of the predictions were accurate. The model explained between 18.4% and 25.1% of the variance in relationship status. Furthermore, a phi (Φ) correlation analysis showed that instrumental deadly violence was significantly negatively associated with IPH ($r = -.40, p = .007$). Consequently, instrumental deadly violence did not correlate with IPH.

Discussion

The aim of this study was to increase the knowledge regarding perpetrators of IPH. We compared 18 perpetrators of IPH with 31 perpetrators of deadly violence in a non-intimate relationship, using forensic psychiatric investigations as a basis. More specifically, the two groups were compared in terms of mental disorder and type of deadly violence used. The results of this study showed that there are certain characteristics characterizing perpetrators of IPH. Perpetrators of IPH were significantly older and had a less number of previous convictions, compared to perpetrators of deadly violence in a non-intimate relationship. The IPH group had a mean age of 46.2 years by the time of the forensic psychiatric investigation, compared to perpetrators of deadly violence in a non-intimate relationship who had a mean age of 33.8 years by the time of the forensic psychiatric investigation. This result is similar to previous research, for example NCCP (2007) demonstrated that perpetrators of IPH had a mean age of 45 years. Additionally, Thomas et al. (2011) concluded that the perpetrators of IPH in their study were seven years older than perpetrators of deadly violence in a non-intimate relationship. Hence, there is support for the evidence that perpetrators of IPH, generally, are older than perpetrators of deadly violence in a non-intimate relationship. In agreement with previous studies (see for example Thomas et al., 2011), we speculate that the reason to why perpetrators of IPH are older by the time of the crime, compared to perpetrators of deadly violence in a non-intimate relationship, may be due to a higher degree of conformity among perpetrators of IPH. Thomas et al. (2011) concluded that perpetrators of IPH had stronger societal ties in terms of employment stability and traditional relationship patterns. Although these types of data were not analyzed in our study, it is possible that these explanations are applicable to the perpetrators of IPH in our sample. Hence, societal bonds (i.e., employment and relationship patterns) may prevent perpetrators of IPH from committing deadly violence at a younger age.

Moreover, the results showed that 61.1% of the perpetrators in the IPH group had a foreign background. This number must be considered high, compared to numbers demonstrated in previous research. For example, Belfrage and Rying (2004) found that approximately 40% of the perpetrators of IPH had a foreign background. In their study, Belfrage and Rying (2004)

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concluded that the percentage of perpetrators of IPH with a foreign background was considerably higher than expected. However, the percentage of perpetrators with a foreign background in the IPH group of this study was not significantly higher compared to the percentage in the group of perpetrators of deadly violence in a non-intimate relationship (45.2%). This result is similar to that of Thomas et al. (2011), who found no statistically significant difference between perpetrators of IPH and perpetrators of deadly violence in a non-intimate relationship. Rather than ethnicity, the overrepresentation of perpetrators with a foreign background in our sample may be due to other explanations. For example, Sarnecki (2009) claimed that low socio-economic status and social class are more reasonable explanations to why individuals with a foreign background are overrepresented in the criminal statistics. However, since variables such as socio-economic status or social class were not coded in our study, these conclusions should be considered as speculations.

More importantly, and in agreement with previous research (see for example Belfrage & Rying, 2004 and Thomas et al., 2011), the results of this study demonstrated that perpetrators of IPH were significantly less antisocial in terms of being diagnosed with an ASPD and having less number of previous convictions, compared to perpetrators of deadly violence in a non-intimate relationship. Furthermore, perpetrators of deadly violence in a non-intimate relationship were significantly more instrumental in their deadly violence, compared to perpetrators of IPH. Perpetrators of IPH were more prone to use reactive deadly violence compared to perpetrators of deadly violence in a non-intimate relationship, although this difference was not statistically significant ($\chi^2(1) = 0.80, p = .371$). Hence, the main results of this study were that perpetrators of IPH were less antisocial and that perpetrators of deadly violence in a non-intimate relationship used significantly more instrumental deadly violence, compared to perpetrators of IPH.

Belfrage and Rying (2004) concluded, using all cases of IPH in Sweden between 1990 and 1999, that perpetrators of IPH to a greater extent were principally diagnosed as dysphoric or with BPD. In agreement with these results, there was a higher percentage of dysphoric and BPD diagnoses among the perpetrators of IPH in this study (23.6%), compared to perpetrators of deadly violence in a non-intimate relationship (9.7%). The higher proportion of BPD among perpetrators of IPH in this study is also in line with the results of the Dixon et al. (2008) study. They found that a high proportion of the IPH perpetrators in their study were diagnosed with BPD. Furthermore, the authors of the present study found that perpetrators of deadly violence in a non-intimate relationship were significantly more antisocial, in terms of being diagnosed with an ASPD diagnosis. Belfrage and Rying (2004) claimed that perpetrators of deadly violence in a non-intimate relationship could be considered as more psychopathic, compared to perpetrators of IPH. Although ASPD and the psychopathic personality disorder are different diagnoses, they share common features such as antisocial behavior and lack of remorse (Lykken, 2006; Widiger, 2006). Moreover, individuals diagnosed with the psychopathic personality disorder generally meet the criteria of ASPD (Widiger, 2006). Additionally, the psychopathic personality disorder is not included in the DSM-IV (APA, 2002) and therefore not used as a principal diagnosis in the forensic

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psychiatric investigations. Hence, the results of this study could be considered similar to the results demonstrated by Belfrage and Rying (2004).

The other main result of this study was that perpetrators of deadly violence in a non-intimate relationship used significantly more instrumental deadly violence, compared to perpetrators of IPH. In combination with the result that perpetrators of IPH used more reactive deadly violence, compared to perpetrators of deadly violence in a non-intimate relationship, this indicates that the two groups are different in terms of type of deadly violence used. Therefore, perpetrators of IPH could be considered as mainly using reactive deadly violence. On the contrary, perpetrators of deadly violence in a non-intimate relationship could be considered more instrumental in their deadly violence. These results are in agreement with Last and Fritzon (2005) who concluded that the type of deadly violence was predictive of the relationship between the perpetrator and the victim. More specifically, perpetrators of IPH used more reactive deadly violence, compared to perpetrators of deadly violence in a non-intimate relationship, who used significantly more instrumental deadly violence. Interpreting the results of Last and Fritzon (2005), combined with the results of our study, perpetrators of IPH could be considered as more reactive in their deadly violence.

The main results of this study (i.e., perpetrators of IPH being less antisocial and being more reactive in their deadly violence) could be considered as having practical importance in terms of preventing IPH. The fact that perpetrators of IPH are less antisocial may be relevant when assessing risk for IPH. When assessing risk for future IPV, IPH included, SARA: SV (Kropp et al., 2008) is frequently administered (Belfrage & Strand, 2008). In these situations, the two main results of this study could be relevant. Generally, when assessing risk for future violence, risk factors such as previous criminality are given great importance. However, drawing on the results of this study, along with previous research (for example Belfrage & Rying, 2004), when assessing the risk for IPH this risk factor may not be considered a key risk factor. The perpetrators of IPH in this study had less previous registered criminality and were, to a significantly lesser extent diagnosed with ASPD. Taken together, these findings suggests that past criminality and the prevalence of ASPD should be considered less relevant when assessing risk for IPH, compared to when assessing risk for violence in general.

Applying the theory of type of deadly violence (i.e., instrumental or reactive) introduced by Feshbach (1964), may explain the reactive deadly violence exerted by perpetrators of IPH. Feshbach (1964) claimed that reactive violence should be considered as a response to a provocation or perceived threat. It might be the case that IPH may be perpetrated as a result of a conflict or argumentation and ultimately result in the killing of a spouse. It is also recognized that perpetrators of both IPH and deadly violence in a non-intimate relationship in our sample were diagnosed with a mental disorder. However, there were a higher proportion of BPD perpetrators in the IPH group. In general, previous studies have shown that mental disorder, and specifically personality disorder, is a risk factor for violence (Fazel & Grann, 2004; Monahan, 2002; Strand et al., 2009). Moreover, BPD has been demonstrated to be a risk factor for IPH (Belfrage & Rying, 2004; Dixon et al., 2008). This is due to the fact that BPD is characterized by traits such as aggression, impulsivity and fear of being abandoned (APA, 2002). It is possible that these traits may affect the type of deadly violence exerted.

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Aggressive and impulsive traits could be considered as contributing factors for reactive deadly violence. Berkowitz (1993) claimed that individuals with aggressive traits, manifested in angry thoughts, emotions and feelings, are more likely to use reactive violence. Hence, individuals with BPD may be more prone to use reactive deadly violence. For example, in a relationship where the woman threatens to leave the spouse, this may be the trigger for these perpetrators in using severe violence. This is supported by Belfrage and Rying (2004) and NCCP (2007) who concluded that separation is a common motive for IPH.

The suggestion that perpetrators of IPH, diagnosed with BPD, could be more prone to use reactive deadly violence is supported by findings from research focusing on IPV (Ross & Babcock, 2009). Ross and Babcock (2009) found that the perpetrators of IPV in their sample, diagnosed with BPD, were more prone to use reactive violence against an intimate partner. In contrast, the perpetrators of IPV, diagnosed with ASPD, in their sample were more prone to use instrumental violence towards an intimate partner. Perpetrators of IPV, diagnosed with BPD, were described as being more erratic and unpredictable in their violence. These characteristics of the violence were mainly explained with the traits that constitute the disorder, such as impulsivity and emotional instability (Ross & Babcock, 2009). Hence, drawing on the results of Ross and Babcock (2009) and the results of this study, IPV and IPH share common features and perhaps also explanations concerning the type of violence exerted by perpetrators diagnosed with BPD and perpetrators diagnosed with ASPD.

This conclusion could be considered as having practical importance when assessing risk for future IPV and the potential risk of IPH. In cases where the SARA: SV is used in assessing this risk, the potential presence of the BPD, combined with violence characterized by reactivity, the risk assessor must be aware that these risk factors constitute an elevated risk for IPH. Moreover, since resources directed towards protecting victims of IPV are not unlimited, it is crucial that these cases with an elevated risk of IPH, is highly prioritized.

However, considering the massive extent of violence perpetrated worldwide each year (see for example WHO, 2002; WHO, 2011), cases of IPH are inevitable to occur. In these cases, determining whether the type of deadly violence used was either instrumental or reactive may assist in allocating police resources in the investigations. The results of this study, along with previous research (Last & Fritzson, 2005), shows that reactive deadly violence is associated with IPH and that instrumental deadly violence is associated with deadly violence where the victim and the perpetrator do not have an intimate relationship. This knowledge may be used in police investigations in terms of narrowing the number of suspected perpetrators. In cases where reactive deadly violence has been exerted, the focus of the investigation should favorably be aimed at intimate partners of the victim. Likewise, in cases of homicide characterized by instrumentality the police investigation may be focused on other possible perpetrators than an intimate partner.

Last & Fritzson (2005) concluded that certain crime scene behaviors of the perpetrator could assist in differentiate between reactive and instrumental deadly violence. In homicides characterized by reactivity, the victims had more often facial injuries, and had significantly more often been exposed to multiple wounding and excessive violence, compared to victims

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of homicides characterized by instrumentality. In contrast, perpetrators of homicides characterized by instrumentality were often inclined to expose the victim's body to post-mortem activity, such as attempting to conceal or move the body. This type of crime scene behavior did not exist in cases of homicide characterized by reactivity.

Additionally, studies indicate that individuals with BPD may be susceptible to treatment (Bateman & Fonagy, 2000; de Groet, Verheul & Trijsburg, 2008). Therefore, in the long-term prevention of IPH, treating individuals diagnosed with BPD convicted of any form of IPV may be beneficial. Bateman and Fonagy (2000) claimed that although there is no medically established treatment for individuals with BPD, certain aspects of different psychotherapeutic treatments have been favorable in rehabilitating these individuals. Bateman and Fonagy (2000) argued that these treatments should be focusing on long-term cognitive and behavioral aspects. Similarly, de Groet et al. (2008) concluded that no specific treatment were more effective in treating individuals with the BPD. Hence, since there is no established treatment for the BPD, de Groet et al. (2008) suggested that an integrated approach to treating BPD be used. Drawing on the results of Bateman and Fonagy (2000) and de Groet et al. (2008) there is no medically established treatment for individuals with BPD available. Therefore, the authors of this study suggest that future research should focus on constructing a medically established treatment for the BPD. This could be of great importance in preventing IPV in general, and IPH in particular.

Limitations of the study

One limitation of this study was the relatively small sample size included. This affected the statistical analysis of the data in that statistically stronger tests were not performed. The small sample size was due to the fact that the number of forensic psychiatric investigations made available was limited by the National Board of Forensic Medicine in Huddinge. Additionally, limited resources in terms of time and financial means also affected both the number of participants included, as well as the amount of data collected. For example, when coding the type of deadly violence using the Cornell coding guide for violent incidents (Cornell, 1996), only parts of the instrument was used. However, this should not be considered as a weakness of this study since other researchers have coded the Cornell coding guide for violent incidents in the same way (see for example Woodworth & Porter, 2002). Another limitation of this study was that the cases included were solely forensic psychiatric investigations performed in Huddinge, Stockholm, between the years of 2007-2010. This means that forensic psychiatric investigations performed in Gothenburg or Umeå during these years were not included. Hence, the conclusions drawn in this study can only be generalized to the sample of the 49 perpetrators included. However, since the results concerning characteristics of the perpetrators are in agreement with previous research, it is likely that our results could be generalized to a larger population of IPH perpetrators.

Conclusions

Perpetrators of IPH are characterized as being more reactive in their deadly violence and less antisocial, in terms of being diagnosed with ASPD and less number of previous convictions. Rather than being antisocial, the results suggest that perpetrators of IPH, to a greater extent,

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are diagnosed with a dysphoric disorder or BPD. This should be considered when assessing risk of IPV and IPH using the SARA: SV, since BPD is a key risk factor for both IPV and IPH. In the long term prevention of IPH, future research should focus on finding an effective integrated treatment for the BPD.

References

- American Psychiatric Association (APA). (2002). MINI-D IV: Diagnostiska kriterier enligt DSM-IV-TR (J. Herlofsson & M. Landqvist övers.). Danderyd: Pilgrim Press (Originalarbete publicerat 2000).
- Bandura, A. (1978). Social learning theory of aggression. *Journal of Communication*, 28(3), 12-29.
- Bateman, A. W., & Fonagy, P. (2000). Effectiveness of psychotherapeutic treatment of personality disorder. *The British Journal of Psychiatry*, 177, 138-143.
- Belfrage, H., & Rying, M. (2004). Characteristics of spousal homicide perpetrators: A study of all cases of spousal homicide in Sweden 1990-1999. *Criminal Behaviour and Mental Health*, 14(1), 121-133.
- Belfrage, H., & Strand, S. (2008). Structured spousal violence risk assessment: Combining risk factors and victim vulnerability factors. *International Journal of Forensic Mental Health*, 7(1), 39-46.
- Belfrage, H., Strand, S., Storey, J. E., Gibas, A. L., Kropp, P. R., & Hart, S. D. (2011). Assessment and management of risk for intimate partner violence by police officers using the Spousal Assault Risk Assessment Guide. *Law and Human Behavior*, 1, 1-8.
- Berkowitz, L. (1993). Pain and aggression: Some findings and implications. *Motivation and Emotion*, 17(3), 277-293.
- Björck, A., & Heimer, G. (2008). Hälso- och sjukvårdens ansvar. In G. Heimer & D. Sandberg (Eds.), *Våldsutsatta kvinnor: Samhällets ansvar (2nd ed)* (pp. 111- 156). Lund: Studentlitteratur.
- Canadian Centre for Justice Statistics. (2011). *Police-reported crime statistics in Canada, 2010*. Retrieved on January 20th from <http://www.statcan.gc.ca/pub/85-002-x/2011001/article/11523-eng.pdf>
- Catalano, S., Smith, E., Snyder, H., & Rand, M. (2009). *Female victims of violence* (No. NCJ 228356). Washington, DC: Bureau of Justice Statistics, U.S. Department of Justice.
- Cornell, D. G. (1996). *Coding Guide for Violent Incidents: Instrumental versus Hostile/Reactive Aggression*. Charlottesville: University of Virginia. Retrieved on February 1st from <http://youthviolence.edschool.virginia.edu/juvenile-violence/pdf/codingguide.pdf>
- de Groet, E. R., Verheul, R., & Trijsburg, R. W. (2008). An integrative perspective on psychotherapeutic treatments for borderline personality disorder. *Journal of Personality Disorders*, 22(4), 332-352.

CHARACTERISTICS OF INTIMATE PARTNER HOMICIDE PERPETRATORS

- Denscombe, M. (2004). *Forskningens grundregler: Samhällsforskarens handbok i tio punkter*. Lund: Studentlitteratur.
- Dixon, L., Hamilton- Giachritsis, C., & Browne, K. (2008). Classifying partner femicide. *Journal of Interpersonal Violence, 23* (1), 74-93.
- Dobash, R.E., & Dobash, R.P. (2011). What were they thinking? Men who murder an intimate partner. *Violence Against Women, 17*(1), 111-134.
- Ekbom, T., Engström, G., & Göransson, B. (2006). *Människan, brottet, följderna*. Stockholm: Natur & Kultur.
- Eliasson, M. (2008). Att förstå mäns våld mot kvinnor. In G. Heimer & D. Sandberg (Eds.), *Våldsutsatta kvinnor: Samhällets ansvar (2nd ed)* (pp. 41-61). Lund: Studentlitteratur.
- Fazel, S., & Grann, M. (2004). Psychiatric morbidity among homicide offenders: A Swedish population study. *American Journal of Psychiatry, 161*, 2129-2131.
- Feshbach, S. (1964). The function of aggression and the regulation of aggressive drive. *Psychological Review, 71*(4), 257-272.
- Fritzon, K., & Garbutt, R. (2001). A fatal interaction: The role of the victim and function of aggression in intrafamilial homicide. *Psychology, Crime & Law, 7*, 309-331.
- Gilbert, F., & Daffern, M. (2011). Illuminating the relationship between personality disorder and violence: Contributions of the General Aggression Model. *Psychology of violence, 1*(3), 230-244.
- Hiscoke, U. L., Långström, N., Ottosson, H., & Grann, M. (2003). Self-reported personality traits and disorders (DSM-IV) and risk of criminal recidivism: A prospective study. *Journal of Personality Disorders, 17*(4), 293-305.
- Holmberg, G., & Kristiansson, M. (2005). Contacts with public services, with special reference to mental health care, preceding a serious crime: A retrospective study of 268 subjects of forensic psychiatric investigations. *International Journal of Law and Psychiatry, 29*, 281-288.
- Jerin, R. A., & Moriarty, L. J. (2010). *The victims of crime*. New Jersey: Pearson Education.
- Johnsson-Latham, G. (2008). Mäns våld mot kvinnor i ett globalt perspektiv. In G. Heimer & D. Sandberg (Eds.), *Våldsutsatta kvinnor: Samhällets ansvar (2nd ed)* (pp. 19-40). Lund: Studentlitteratur.
- Kropp, P. R., & Hart, S. D. (2000). The spousal assault risk assessment (SARA) guide: Reliability and validity in adult male offenders. *Law and Human Behavior, 24*, 101-118.
- Kropp, P. R., Hart, S. D., & Belfrage, H. (2008). *Bedömning av risk för upprepat partnervåld (SARA:SV). Användarmanual*. Sundsvall: Rättspsykiatriska Regionkliniken. Kommentar:

CHARACTERISTICS OF INTIMATE PARTNER HOMICIDE PERPETRATORS

- Svensk översättning av Brief spousal assault form for the evaluation of risk (B-SAFER). User manual. Vancouver: Proactive Resolutions.
- Last, S.K., & Fritzon, K. (2005). Investigating the nature of expressiveness in stranger, acquaintance and intrafamilial homicides. *Journal of Investigative Psychology and Offender Profiling*, 2, 179-193.
- Laurell, J., Belfrage, H., & Hellström, Å. (2010). Facets on the psychopathy checklist screening version and instrumental violence in forensic psychiatric patients. *Criminal Behaviour and Mental Health*, 20, 285-294.
- Lundgren, E., Heimer, G., Westerstrand, J., & Kalliokoski, A-M. (2001). *Slagen Dam*. Stockholm: Fritzes Public Publications.
- Lykken, D. T. (2006). Psychopathic personality: The scope of the problem. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 3-13). New York: The Guilford Press.
- Monahan, J. (2002). The MacArthur studies of violence risk. *Criminal Behaviour and Mental Health*, 12, 67-72.
- National Council for Crime Prevention (NCCP). (2011a). Criminal statistics: Official statistics of Sweden (BRÅ-rapport 2011:11). Retrieved on January 20th from http://www.bra.se/extra/measurepoint/?module_instance=4&name=2011_11_Kriminal_2010_webb.pdf&url=/dynamaster/file_archive/111115/07a6b2f01f2ec356e9f61bac64068233/2011%255f11%255fKriminal%255f2010%255fwebb.pdf
- National Council for Crime Prevention (NCCP). (2011b). Det dödliga våldets utveckling: Fullbordat och försök till dödligt våld i Sverige på 1990- och 00-talet. (BRÅ- rapport 2011:5) Retrieved on April 24th from http://www.bra.se/download/18.744c0a913040e4033180001774/2011_5_dodliga_valdets_utveckling.pdf
- National Council for Crime Prevention (NCCP). (2001). *Dödligt våld mot kvinnor i nära relationer* (BRÅ- rapport 2001:11). Stockholm: Fritzes.
- National Council for Crime Prevention (NCCP). (2007). Utvecklingen av dödligt våld mot kvinnor i nära relationer (BRÅ- rapport 2007:6). Retrieved on January 23rd from http://www.bra.se/extra/measurepoint/?module_instance=4&name=Utvecklingen%20av%20d%F6dligt%20v%E5ld.pdf&url=/dynamaster/file_archive/070528/28b4da43b5c245c4c1e15173c5b091be/dodligt%255fvald%255fIn.pdf
- National Council for Crime Prevention (NCCP). (2009). *Våld mot kvinnor och män i nära relationer: Våldets karaktär och offrets erfarenheter av kontakter med rättsväsendet* (BRÅ- rapport 2009:12). Retrieved on April 25th from http://www.bra.se/download/18.cba82f7130f475a2f180002016/2009_12_vald_kvinnor_m_n_nara_relationer.pdf
- Nurius, P. S., Macy, R. J., Bhuyan, R., Holt, V. L., Kernic, M. A., & Riavara, F. P. (2003). Contextualizing depression and physical functioning in battered women: Adding

CHARACTERISTICS OF INTIMATE PARTNER HOMICIDE PERPETRATORS

- vulnerability and resources to the analysis. *Journal of Interpersonal Violence*, 18(12), 1411-1431.
- Official Reports of the Swedish Government 2002:3. (2002). *Psykisk störning, brott och ansvar*.
- Pagano, R. R. (2010). *Understanding statistics in the behavioral sciences*. Canada: Wadsworth.
- Pallant, J. (2010). *SPSS- Survival manual*. Singapore: McGraw-Hill Education.
- Porter, S., & Woodworth, M. (2006). "I'm sorry I did it . . . but he started it": A Comparison of The Official and Self-Reported Homicide Descriptions of Psychopaths and Non-Psychopaths. *Law and Human Behavior*, 31, 91-107.
- Proposition 2010/11: 45. *Förbättrat skydd mot stalkning*.
- Ross, J. M., & Babcock, J. C. (2009). Proactive and reactive violence among intimate partner violent men diagnosed with antisocial and borderline personality disorder. *Journal of Family Violence*, 24, 607-617.
- Sarnecki, J. (2009). *Introduktion till kriminologi*. Lund: Studentlitteratur.
- Strand, S., Holmberg, G., & Söderberg, E. (2009). *Den rättspsykiatriska vården*. Lund: Studentlitteratur.
- The National Board of Health and Welfare. (2007). *Kostnader för våld mot kvinnor: En samhällsekonomisk analys*. Stockholm: Socialstyrelsen.
- The National Board of Health and Welfare (1996:14). *Rättsmedicinalverkets föreskrifter och allmänna råd om rättspsykiatrisk undersökning*. Stockholm: Nordstedts.
- The Swedish Council on Health Technology Assessment. (2005). *Riskbedömningar inom psykiatrin- Kan våld i samhället förutsägas? Rapport 175/2005*. Stockholm: Statens beredning för medicinsk utvärdering.
- Thijssen, J., & De Ruiter, C. (2011). Instrumental and expressive violence in Belgian homicide perpetrators. *Journal of Investigative Psychology and Offender Profiling*, 8(1), 58-73.
- Thomas, K. A., Dichter, M. E., & Matejkowski, J. (2011). Intimate versus nonintimate partner murder: A comparison of offenders and situational characteristics. *Homicide Studies*, 15(3), 291-311.
- Tjaden, P., & Thoennes, N. (1998). *Prevalence, incidence, and consequences of violence against women: Findings from the national violence against women survey*. Washington, DC: U.S Department of Justice.

CHARACTERISTICS OF INTIMATE PARTNER HOMICIDE PERPETRATORS

- United Nations Office on Drugs and Crime (UNODC). (2011). 2011 Global study on homicide: Trends, contexts, data. Retrieved on January 23rd from http://www.unodc.org/documents/data-and-analysis/statistics/Homicide/Globa_study_on_homicide_2011_web.pdf
- U.S. Department of Justice. (2011). *Crimes in the United States, 2010*. Retrieved on January 20th from <http://www.fbi.gov/about-us/cjis/ucr/crime-in-the-u.s/2010/crime-in-the-u.s.-2010/violent-crime/violent-crime>
- Wahlund, K., & Kristiansson, M. (2006). Offender characteristics in lethal violence with special reference to antisocial and autistic personality traits. *Journal of Interpersonal Violence, 31*(8), 1081-1091.
- Widiger, T. A. (2006). Psychopathy and DSM-IV psychopathology. In C. J. Patrick (Ed.), *Handbook of psychopathy* (pp. 156-171). New York: The Guilford Press.
- Woodworth, M., & Porter, S. (2002). In cold blood: Characteristics of criminal homicides as a function of psychopathy. *Journal of Abnormal Psychology, 111*(3), 436-455.
- World Health Organization (WHO). (2002). *World report on violence and health*. Geneva: WHO.
- World Health Organization (WHO). (2011). *Global burden disease: Causes of death 2008*. Geneva: WHO.
- World Health Organization (WHO). (2002). *World report on violence and health*. Geneva: WHO.

Appendix I

Age by the time of the forensic psychiatric investigation:

Foreign background No Yes Country:

In cases of parents with a foreign background. Country:

Severely mentally disordered

Previous convictions:

Previous major forensic psychiatric investigations:

Previous minor forensic psychiatric investigations:

Imprisonment (in years):

Mental disorder

Axis I:

Axis II:

Type of deadly violence

Instrumental

Instrumental/reactive

Reactive/Instrumental

Reactive