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Characteristics of adult male victims in intimate heterosexual relationships from domestic violence police narratives

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Abstract

Background setting Domestic violence (DV) perpetrated against male victims has received little attention in the literature, since men are generally the perpetrators rather than victims of DV. This study examines the characteristics of adult male victims and female Persons of Interest (POIs) suspected and/or charged with perpetrating a DV offence in an intimate relationship.

Methods We analyzed the results from a text mining study on half a million (492,393) police-attended DV events from 2005 to 2016 in New South Wales (Australia). 7.3% (13,896) events involving an adult male victim and a female POI in an intimate relationship were included.

Results Over three-quarters (77.5%; 10,775) of DV events had at least one abuse type recorded, with the most common being "unspecified assault" (57.3%), followed by verbal abuse (34.1%), and punching (29.1%). Half of events (51.2%; 7,128) had an injury recorded by the police, with "cut/abrasion(s)" the most common (41.6%), followed by "red mark/sign" (25.4%), and "bruising" (15.8%). A total of 2,196 (15.8%) DV events had a mention of a mental illness for the POIs and 570 (4.1%) for the victims. Mood disorders had the most mentions for both POIs (37.0%) and victims (32.8%). Among victims, anxiety related disorders saw the largest increase (14.0%) in mentions from 2005 to 2016, followed by depression (8.0%).

Conclusion Our findings represent population level data insights from DV events involving an adult male victim in an intimate relationship with a female POI. Our findings align with existing studies suggesting that female POIs are more likely than male POIs to use objects/weapons, employ verbal abuse, and perform minor acts of physical violence. Female POIs had 4 times the number of mental illness mentions than male victims indicating that mental illness could be a risk factor for DV, while the increase in anxiety disorders and depression for male victims corresponds with research that associates mental illnesses and DV victimhood. This study highlights the need for a greater awareness and support for male victims of DV.

Keywords Domestic violence, Intimate partner violence, Text mining, Police records, Male victims



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Introduction

Domestic violence (DV) refers to violence that occurs within interpersonal relationships including caregivers, guardians, a dependent person, or those living together in a household such as flatmates (Briodi, 2010; AIHW, 2024a). The state of New South Wales (NSW) in Australia has defined a DV offence as "a personal violence offence committed by a person against another person with whom the person who commits the offence has or has had a domestic relationship (Crimes (Domestic and Personal Violence) Act 2007). This definition was further revised in 2024 to include "behavior that is physically abusive, sexually abusive, coercive, economically or financially abusive, verbally abusive; behavior that shames, degrades or humiliates; behavior that is intimidation; behavior that is stalking, or that directly or indirectly harasses a person, or monitors or tracks a person's activities, communications or movements; behavior that damages or destroys property; behavior that causes death or injury to an animal, or otherwise makes use of an animal to threaten a person; behavior that isolates the person; and behavior that deprives the second person of liberty" (NSW Legislation, 2024).

DV has been identified as a public health problem because it can lead to an increased risk of death, physical injury, depression, substance use, risky sexual behaviors, eating disorders, posttraumatic stress disorder, suicidal ideation and attempts, acts of self-harm, and exacerbation of psychotic symptoms (Coker et al., 2002; Robinson & Spilsbury, 2008; Sheridan & Nash, 2007; Howard et al., 2010; Trevillion et al., 2012; Khalifeh et al., 2015; Kita et al., 2016). The negative impacts are far-reaching for victims, their families and the wider community placing enormous pressure on justice, health, and social welfare systems (Dahlberg & Krug, 2006).

DV can be hard to identify as it mostly takes place behind closed doors (Drijber et al., 2013). According to the latest Australian personal safety survey, 1 out of 6 women and 1 out of 18 men have experienced physical and sexual violence and 1 out of 4 women and 1 out of 5 men have experienced emotional abuse from a current/former partner (Australia Bureau of Statistics, 2023). Empirical evidence confirms that men perpetrate abuse far more frequently than women, and that women face higher rates of repeated severe abuse such as murder, assault, or rape (Walby & Towers, 2017; Lysova et al., 2019). In Australia, women aged 15 years and over experienced 6 times higher rates of hospitalization than men where a perpetrator was a domestic partner (AIHW 2024b). A recent report from the Australian Institute of Criminology concluded that although the number of intimate partner homicide incidents has declined over the past decade, the majority of these cases (89%) still involved women as victims (Miles & Bricknell, 2024).

DV involving male victims has received little attention in the literature and tends to be underestimated (Cook, 1997; Drijber et al., 2013; Thureau et al., 2015; Casali et al., 2017; Lowe & Rogers, 2017; Margherita et al., 2021; Wörmann et al., 2021). Additionally, men are often reluctant to report such incidents and involve the police due to embarrassment, ridicule, being arrested as the perpetrator rather than the victim, an inability to view DV as a crime, and the lack of support services for men (Barber, 2008; Carmo et al., 2011; Dutton & White, 2013; Thureau et al., 2015; Walker et al., 2020; Dim & Lysova, 2022). Social factors prioritizing women's victimization over men's also diminishes the likelihood of male victims seeking help (Drijber et al., 2013; Lowe & Rogers, 2017). Arias and Johnson (1989), and more recently Mackay et al. (2022), showed that when men and women were asked to rate violent male-female interactions, they perceived male-to-female aggression as more negative than female-to-male aggression. A recent study in the UK that explored client data from 719 callers to a male DV charity revealed that most callers reporting abuse by a female perpetrator, remained with their current partner, that many of the men were fathers, and almost half struggled to access support services (Hine et al., 2022).

The ambivalence towards male victims of DV has resulted in a "gendered paradigm" (Dutton & White, 2013; Dutton & Nicholls, 2005) or "DV stereotype" (Bates et al., 2019; Hine, 2019) in which the research literature describes DV as physical or sexual abuse perpetrated by men towards women, and characterizing female violence as an act of self-defense (Dutton & Corvo, 2006). While most studies report DV as predominantly perpetrated by men against women, evidence suggests that rates of DV by women and men are similar (Fiebert & Gonzalez, 1997; Archer, 2000; Kimmel, 2002; Desmarais et al., 2012; Park & Kim, 2019). Recent data from the UK showed that an estimated 757,000 men aged 16-74 years experienced DV in the year ending March 2020 (Office for National Statistics, 2020). The National Intimate Partner and Sexual Violence Survey in the United States has recorded the prevalence of men's and women's victimization since 2010 and estimates that 1 in 3 men experience DV in their lifetime. In 2017/18 they estimated the lifetime prevalence of sexual or physical violence and stalking victimization for men to be 44.2% (Smith et al., 2017). Rates of severe physical violence (e.g., punching, being hit with an object) were reported to be 32.5% for females and 24.6% for males, with psychological abuse 49.4% for females and 45.1% for males (Leemis et al., 2022).

Risk factors for male victimization in DV include alcohol abuse, childhood maltreatment and neglect, jealousy, mental disorder, disability and short relationship duration (Afifi et al., 2009; Lövestad & Krantz, 2012; Mitra et al., 2016; Kolbe & Büttner, 2020) which are similar to those

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found in women (O'Leary et al., 2007; Spencer et al., 2016). Evidence suggests that men can experience similar types of physical abuse as women although the outcomes of abuse as not as life-threatening as to those of women (George & Yarwood, 2004; Du Plat-Jones, 2006). Studies of male DV victims have identified kicking, biting, choking, scratching, the use of weapons and psychological abuse (Straus, 1980; Archer, 2000; Hines & Straus, 2007; Drijber et al., 2013). Recent research has also provided evidence of controlling tactics (Archer, 2000; Carney & Barner, 2012; Bates et al., 2014; Bates & Graham-Kevan, 2016) over personal freedom (e.g., limiting the use of mobile phones, engagement in social activities) (Bates, 2020), manipulation (e.g., threatening false allegations, falsifying pregnancy) (Bates, 2020), intimate partner terrorism (Hines & Douglas, 2010a, b), financial coercion, isolation (e.g., the use of children against fathers) (Bates, 2020; Mackay et al., 2022), gaslighting (e.g., making men doubt their perception of the world and sanity) and humiliation (e.g., belittlement, lowering self-esteem) (Bates, 2020). Legal and administrative aggression has also been identified such as the manipulation of the legal system against a male partner (Tilbrook, Allan, & Dear, 2010; Hines et al., 2015; Bates, 2020; Dim & Lysova, 2022) although this behavior extends to female partners too (Campbell, 2017; Gutowski & Goodman, 2023). Men are also subject to sexual abuse including being "forced to penetrate" their partners, (Hines & Douglas, 2010a, b; Weare, 2018).

While male-to-female violence is more life-threatening, male victimization has an impact on men's physical, mental, and social health (Coker et al., 2002). However, masculine norms of strength, stoicism, non-retaliation against women, and their embarrassment and shame at the violation of these norms in their intimate relationship can lead to prolonged abuse (Migliaccio, 2001), and denial, whereby they redefine the situation to disparage the pain, hurt, and ordeal they experience. In the long run, domestic abuse has significant detrimental consequences on men's health and well-being (Allen-Collinson, 2011). Long-lasting negative outcomes for overall physical (Hines & Douglas, 2016; Hines et al., 2015) and mental health (Bates et al., 2019) include minor injuries, impaired physical health (Kolbe & Büttner, 2020), binge drinking (Hines & Straus, 2007), anxiety (Kolbe & Büttner, 2020) and posttraumatic stress disorder (Hines, 2007; Hines & Douglas, 2011). Importantly, for male victims who are also fathers, many report that the relationship with their child(ren) is affected, through experiences of alienation, parental relationship disruption, and legal aggression (Bates et al., 2019). Moreover, this use of systems, particularly family courts, had a substantial impact on the mental health of male victims (Berger et al., 2016).

Research has focused on qualitative studies (e.g., online surveys, in person or via call victim interviews) to explore men's experiences of female-perpetrated DV and to investigate the impact and outcomes of DV towards men (Bates, 2019a, 2020; Hine et al., 2022; Walker et al., 2020; Alsawalqa, 2023). Due to this approach, the samples are relatively small (Walker et al., 2020; Margherita, Franceschetti, & Cattaneo, 2021; Alsawalqa, 2023). Although qualitative work can improve the understanding of effective approaches to support abused men and providing services (Hine et al., 2022), large-scale quantitative data that can detail the profile, and outcomes of abused adult male victims in a heterosexual relationship is lacking. A recent systematic review found out that only 6 out of 16 articles discussing the male experience on DV with empirical evidence used quantitative methods (McLeod et al., 2024).

In NSW, the NSW Police Force (NSWPF) attends and records details on thousands of DV events each year. A DV event is defined as an incident of domestic dispute that involves any form of violence or abuse between a person of interest (POI) - an individual accused of perpetrating any form of violence or abuse toward another individual - and a victim. Information related to DV events is recorded both as structured data (fixed fields, e.g., demographic information such as name, date of birth, Aboriginal status) for the POI and the victim, and as a free-text narrative that describes details of the event (e.g., cause, mental health status, threats of subsequent violence) based on the police officers' observations and testimonies from the involved parties and witnesses (e.g., neighbors, roommates, friends, family members). Although the narratives may be used as an aide-mémoire for police officers and lawyers should the case proceed through the courts, to date they have not been used systematically for research and monitoring purposes due to their voluminous and confidential nature and the time taken to inspect and glean relevant information. We recently demonstrated that these event narratives contain rich information on perpetrators and victims of DV such as mental illness, victim injuries, and abuse types which can be used to improve DV surveillance and fill in knowledge gaps (Karystianis et al., 2018, 2019, 2020, 2022, 2024).

This retrospective observational study's aim was to provide more detailed information on adult male victims of DV in an intimate relationship with a female POI regarding the nature and context of abuse (i.e., abuse types, victim injuries, mental illness mentions) by text mining a large sample of police-attended narratives in NSW from 2005 to 2016 to improve the understanding of DV in men through population-based findings.

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Methods

Data

The NSWPF attends and records DV events in their Computerized Operational Policing System (COPS) database as fixed fields and as unstructured narratives (Karystianis et al., 2018). They also assign a unique identifier to each POI or victim involved which is retained for subsequent events involving the same person. A unique identifier is assigned to each perpetrator or victim involved in an event, which is retained for subsequent events involving the same person (Karystianis et al., 2018, 2019).

We were provided with a dataset of 492,393 DV policeattended events attended from January 2005 to December 2016 flagged under the Crimes (Domestic and Personal Violence) Act 2007 (NSW). These events were identified based on one of the following values being flagged in the fixed fields: "domestic" as the classification of the offense, "DV-related" as an associated factor in the event (specific binary categories that classify events by the attending police officer[s]), or a recorded domestic relationship between perpetrator and victim with the following values ("spouse/partner," "ex-spouse/ex-partner," "boy/girlfriend [including ex-boy/ex-girlfriend]," "parent/ guardian [including step/foster]," "child [including step/ foster]," "sibling," "other member of family [including kin]," and "carer"). The dataset contained events involving the following offense categories: assaults, breaches of Apprehended DV Orders (ADVOs), homicides, malicious damage to property, and offenses against another person (e.g., harassment, intimidation, kidnapping, abduction). Notably, events involving the offense categories sexual assault or stalking were not included in the dataset.

DV events can have multiple POIs or victims. However, the implemented text mining methodology was unable to associate the extracted "mention" of a victim injury or abuse type with a specific perpetrator or victim, if more than two POIs or victims were present in the same event. Therefore, from 492,393 police-recorded DV events, we used only on those events involving a single POI against a single victim resulting in a total of 416,441 events. 189,614 of these events involved intimate heterosexual relationships. We selected the fixed field values of male for the victim's sex and female for the POI's sex with an age above 18 for male victims and a recorded intimate relationship as "spouse/partner", "ex-spouse/partner" and "boyfriend/girlfriend [including ex-boy/ex-girlfriend]" which resulted in a total of 13,896 DV events (7.3%) for our analysis.

Text mining approach

We applied a text mining method with General Architecture for Text Engineering, a family of open-source text analysis tools and processes (Cunningham et al., 2013), to automatically extract mental illness mentions of POIs

and victims, abuse types conducted by POIs, and victim injuries from the DV narratives.

We developed a rule-based approach to identify mental illnesses (e.g., "the person of interest has been diagnosed with mood affective disorder"), abuse types (e.g., "the defendant slapped the victim once"), and victim injuries (e.g., "the victim suffered cuts on both of her arms"). The rules relied on common syntactical patterns observed in text that suggest a mention of the targeted for identification information. The rules make use of specific semantic anchors for victims (e.g., victim, person in need of protection) and POIs (e.g., person of interest, defendant) to assign the extracted mention of a mental illness to a victim or a POI, the abuse type to a POI and the injury to a victim. A sample of 200 DV event narratives was used to design the rules. We also manually crafted dictionaries that contain terms, common synonyms, and abbreviations for mental illnesses, abuse types, and injuries (Karystianis et al., 2019; Karystianis et al., 2018).

Our method's evaluation against a sample of 100 DV event narratives returned F1-Scores greater than 80% (81% and 87% for the mental illness mentions for victims and POIs, respectively; 90%% for abuse types and 86% for victim injuries) (Ananiadou et al., 2006) which suggest reliable performance. Further details of the methodology, its evaluation and error analysis have been published elsewhere (Karystianis et al., 2018, 2019). The extracted mental illness mentions were classified according to the International Classification of Diseases, tenth revision (WHO 2017) across four levels with the detailed process of classification published elsewhere (Karystianis et al., 2018) (Appendix, Table 1). The extracted abuse types and injuries were clustered into 44 (Appendix, Table 2) and 17 categories (Appendix, Table 3) respectively (Karystianis et al., 2019).

Ethics

Permission to access the records was granted by the NSWPF, following ethical approval from the University of New South Wales Human Research Ethics Committee (reference: HC16558).

Results

Overall, from a total of 416,441 DV events, 189,614 (45.5%) events involved intimate heterosexual relationships. A total of 13,896 (7.3%) involved an adult (18 years old and over) male victim in an intimate relationship with a female POI. Between 2005 and 2016 the proportion of DV events involving an adult male victim in an intimate relationship with a female POI increased from 6.4% in 2005 to 7.8% in 2016 (an average of 7.3% of DV events across 12 years) (Appendix, Table 4). The median age of the POIs was 34.1 years old while that of the victims was 37.6 years old. Breaking down the age of the

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Table 1 Distribution of the age groups of adult male victims and female POIs in an intimate relationship in police recorded DV events from 2005 to 2016 in NSW

Age group	Number of DV events with a recorded POI age (n=8,418)	%	Number of DV events with a recorded victim age (n = 13,896)	%
18 to 24 years	1,703	12.3	1,671	12.0
25 to 44 years	5,333	38.4	8,735	62.9
45 to 64 years	1,316	9.5	3.205	23.1
65 + years	66	0.5	285	2.1
No recorded	5,478	39.4	0	0
age				

POIs and victims across four age groups (i.e., 18 to 24 years old, 25 to 44 years old, 45 to 64 years old, 65+years old), most POIs belonged to the 25 to 44 years old group (38.4%) followed by the 18 to 24 years olds with 12.3% (Table 1). Most victims were between 25 and 44 years old (62.9%) and 44 to 64 years old (23.1%) (Table 1).

Abuse types

More than 75% (77.5%; 10,775) of DV events had at least one abuse type recorded. A total of 42 different abuse types were reported, the most common being "assault (unspecified)" (e.g., "the victim was physically assaulted") (57.3%) followed by verbal abuse (34.1%) and punching

(29.1%) (Fig. 1). Abuse such as property damage, scratching and the use of weapons were: 16.4%, 14.5% and 6.3% respectively. Abuse types with more severe outcomes such as "stabbing" were low (2.1%), while social abuse (e.g., possession of personal effects, limit/prevent children access, financial control) were less than 1.0% (Appendix, Table 5).

Threats were recorded in 4.1% of the DV events (*n*=578) with 17 different threats identified. More than 3 out of 5 threats (76.8%) were direct threats to kill the victim (e.g., "I will kill you", "I will slit your throat") followed by veiled threats to harm (14.9%) (e.g., "Watch your back") and direct threats to harm the victim (10.0%) (e.g., "I am going to stab you"). 7.8% of the threats involved threats to self-harm (e.g., "I am going to kill myself") (Appendix, Table 6). The most common threat was "I will kill" including its grammatical variations at 72.1%. This was followed by "I am going to kill myself" with 7.8% and "I am going to stab you" at 7.6% (Table 2).

Half of the DV events (51.2%; 7,128) had an injury recorded. The most common injury was "cut/abrasion(s)" (41.6%) followed by "red mark/sign" (25.4%) and "bruising" (15.8%). "Black eye", "burn mark(s)" and "broken tooth" were the least common injury types with less than 1.0% (Table 3).

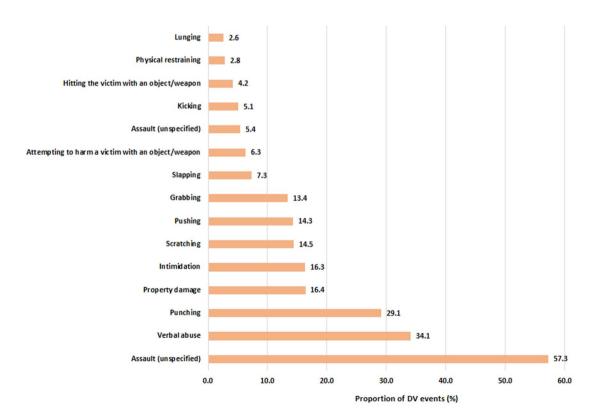


Fig. 1 Top 15 most common abuse types recorded in 13,896 DV events with an adult male victim and a female POI in an intimate relationship. *Note*: A DV event can have more than one abuse type recorded

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Table 2 Threats identified in DV events (n = 578) with an adult male victim and a female POI in an intimate relationship. Note that a DV event can have more than one threat recorded

Threat	Threat class	Num- ber of DV events	%	
I will kill you (and its gram- matical variations)	Direct threat to kill	417	72.1	
I am going to kill myself	Direct threat to self-harm	45	7.8	
I am going to stab you	Direct threat to harm	44	7.6	
Watch your back	Veiled threat to harm	43	7.4	
I will get you	Veiled threat to harm	42	7.3	
I will slit your throat	Direct threat to kill	15	2.6	
You are dead	Direct threat to kill	10	1.7	
I hope you die	Wish for death	9	1.6	
I am going to get her	Direct threat to harm a 3rd person	3	0.5	
I will destroy you	Direct threat to harm	2	0.3	
I will fucking hit you	Direct threat to harm	2	0.3	
I am going to make your life hell	Direct threat to harm	2	0.3	
You are going to die	Direct threat to kill	2	0.3	
I will punch you in the face	Direct threat to harm	1	0.2	
I will stab and shoot you	Direct threat to kill	1	0.2	
I am gonna fucking punch your head	Direct threat to harm	1	0.2	
You wait till I get you	Veiled threat to harm	1	0.2	

Table 3 Number of DV events with an adult male victim and a female POI in an intimate relationship with at least one recorded victim injury (n = 7,128)

Injury type	Number of DV events	%
Cut/abrasion(s)	2,963	41.6
Red mark/sign(s)	1,808	25.4
Bruising	1,126	15.8
Bleeding	1,052	14.8
Swelling	923	12.9
Miscellaneous (e.g., injury)	903	12.7
Soreness	551	7.7
Fracture	452	6.3
Stab wound	359	5.0
Bite mark(s)	299	4.2
Scratch	284	4.0
Lump	269	3.8
Grazing	193	2.7
Black eye	65	0.9
Burn mark(s)	32	0.4
Broken tooth	12	0.2

Note: A DV event can have more than one injury type recorded

Mental illness

A total of 2,518 DV (18.1%) events had a mention of mental illness for either a POI or a victim. Specifically, 2,196 (15.8%) events had a mention of a mental illness for

the POIs and 570 (4.1%) for the victims. Across the 2005 to 2016 period, the proportion of DV events involving a mental illness mention for male victims increased from 1.1% in 2005 to 6.1% in 2016. At the highest level of the ICD-10 classification (i.e., first), for both POIs and victims the most common mental illness category was mood disorders (37.0% POIs; 32.8% victims) followed by behavioral and emotional disorders with onset usually occurring in childhood and adolescence (10.3%) for POIs and mental and behavioral disorders due to psychoactive substance use (11.1%) for male victims. Intentional self-harm was 6.6% for female POIs while for victims it was slightly higher at 8.2% (Appendix, Table 7 lists a full breakdown of the recorded mental illness at first level of ICD-10 for both POIs and victims). The victim mentions for behavioral and emotional disorders with onset usually in childhood and adolescence mentions was the only group of mental illnesses that declined over time from 27.3 to 4.8% while anxiety, dissociative, stress-related, somatoform and other nonpsychotic mental disorders had the opposite trend with a 14.0% increase. Mood disorders saw the largest increase in DV events with 10.2% (Fig. 2) (Table 8; Fig. 1, Appendix).

On the second level of ICD-10 classification, 390 DV (2.8%) events had a mention of mental illness for victims. Depression (listed as major depressive disorder, single episode) was the most common with 30.0% followed by bipolar disorder with 17.6% and alcohol abuse with 15.8% (Table 4). Excluding alcohol abuse which decreased over time (2.5%), the most common recorded mental illnesses (i.e., depression, bipolar disorder, other anxiety disorders, schizophrenia) increased from 8.0 to 18.3% (Table 9, Appendix).

Discussion

This study reports population level findings of DV characteristics (i.e., abuse types, victim injuries, mental health mentions) of adult male victims in an intimate relationship with female POIs. This study fills an important knowledge gap in an area that has been under-researched in the past (Thureau et al., 2015; Casali et al., 2017). Examining the prevalence of DV involving adult male victims is a crucial starting point to develop targeted interventions that identify and minimize violence (Wörmann et al., 2021).

Our study found 42 abuse types in almost 4 out of 5 DV events (77.5%) involving adult male victims. Dutton and White (2013) have stated that in a nationally representative sample in Canada, the male experience was virtually identical to those of abused women in a DV setting. Male victims experience both physical (e.g., punching, kicking, limb twisting), and nonphysical abuse (e.g., verbal abuse, threats) as well as property damage (George & Yarwood, 2004; Du Plat-Jones, 2006; Alsawalqa, 2023). However, in

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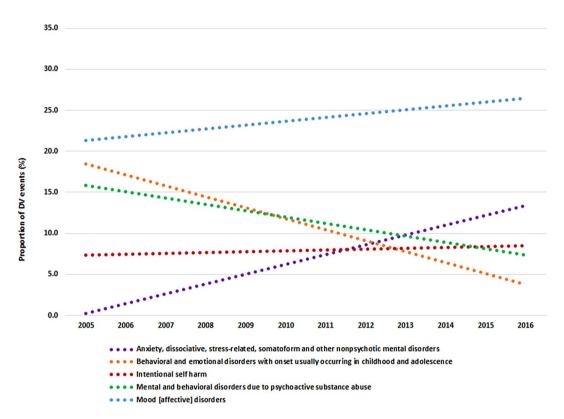


Fig. 2 Proportion of DV events with an adult male victim and a female POI in an intimate relationship that mentioned one of the five most common recorded mental illnesses classified in ICD 10 level 1 categories for a male victim for the 2005 to 2016 period in NSW as trend lines (*n* = 570)

Table 4 Top 10 most common mental illnesses at ICD-10 level 2 recorded in DV events with an adult male victim and a female POI in an intimate relationship (n = 390)

Mental illness, ICD 10, Level 2	Num- ber of DV events	%
Major depressive disorder, single episode	117	30.0
Bipolar disorder	69	17.6
Alcohol abuse	62	15.8
Other anxiety disorders	36	9.2
Schizophrenia	35	8.9
Attention deficit hyperactivity disorder	27	6.9
Other behavioral and emotional disorders with onset usually occurring in childhood and adolescence	21	5.3
Reaction to severe stress, and adjustment disorders	15	3.8
Injury of unspecified body region	13	3.3
Intellectual disability, unspecified	13	3.3

our findings the prevalence of social (e.g., isolation from children) and financial (e.g., finance control) abuse was less than 1%. Since police who attend DV events have a focus on ensuring victim safety and note observable injuries, it is likely that less visible abuse such as financial and social abuse are under-reported (Karystianis et al., 2024). In addition, male victims often do not disclose certain types of abuse (particularly nonphysical ones) as firstly, they do not identify their partner's behavior as DV,

secondly are conscious of the shame and stigma involved in acknowledging such abuse, thirdly, have no support services to turn to, and fourthly may be met with minimization by police of their abuse experience (Carmo et al., 2011; Drijber et al., 2013; Thureau et al., 2015; Walker et al., 2020; Dim & Lysova, 2022). Indeed, a governmental survey of 219 male victims of DV in Japan reported that only 31.4% of male victims disclosed their experience of victimization, 20% lower than female victims (Gender Equality Bureau Cabinet Office, 2020).

Our population based results corresponded with previously published findings that saw female POIs in heterosexual relationships employing minor acts of physical violence (e.g., scratching 14.5%; slapping 7.3%) (Mechem et al., 1999; Archer, 2000; Drijber et al., 2013;). In line with prior research, our findings also noted the use of objects to either attempt to hit male victims with an object (6.3%) or to successfully assault them with an object (5.1%) during a domestic dispute (Makepeace, 1986; Roberts et al., 1997; Archer, 2000). A study in the Netherlands (Drijber et al., 2013) highlighted the use of objects, predominantly household items such as chairs, knives, vases and tableware by female POIs in 54% of the examined DV cases which involved physical abuse. Furthermore, reports from US emergency clinics mentioned that between 47 and 71% of cases with male victims of DV involved punching, kicking and biting by female partners, all of Karystianis et al. Crime Science (2024) 13:28 Page 8 of 11

which were in the top 20 most common recorded abuse types in our dataset (punching -29.1%; kicking -5.4%; biting -2.0%). Verbal abuse was also noted to be the second most common abusive behavior (34.1%) corresponding to the notion that female perpetrators of DV tend to psychologically abuse victims as opposed to male ones (Carmo et al., 2011). Although these female-to-male violence may be less lethal than male-to-female violence, the male victimization circumstances presented in here and in previous studies should be further investigated.

Our study found mostly minor injuries among male victims in 1 out of 2 (51.2%) of DV events. The most common injury among adult male victims was "cut/ abrasion(s)" (41.6%) with more serious injuries showing a low prevalence (e.g., fracture –6.3%) despite previous evidence showing that male victims of DV abuse are more likely to be admitted to emergency departments with stab wounds (Vasquez & Falcone, 1997). Although studies have shown that female POIs attempt to bite, scratch and stab male victims (Straus, 1980; Archer, 2000; Hines & Straus, 2007; Drijber et al., 2013), the prevalence of injuries such as bites, scratches and stab wounds accounted for less than 5.0% out of the 7,128 DV events with a recorded injury. Despite half of our dataset involving DV events with a recorded injury, this number may be higher due to male victims underreporting their victimization and because injuries might be mild (Carmo et al., 2011). In a 1985 survey, less than 1% of men who been experiencing IPV had called police (Stets & Straus, 2017). Taken together, such results demonstrate the severity of abuse directed towards men, and the necessity for increased support and visibility for male victims (Hine et al., 2022). Injury patterns in male victims noted here are largely consistent to those reported by female victims of DV (Kolbe & Büttner, 2020). Such nuanced information is usually provided by qualitative research (e.g., in-depth interviews with victims or focus groups) that usually comes with its own limitations such as small sample size, lack of representativeness, selection bias, and the time required to conduct such research to support quantitative data. Our study nonetheless highlights less enumerated aspects of the male DV experience through population-based evidence.

These findings offer new perspectives towards DV on adult male victims arising from female POIs, indicating that other factors might be contributing to the onset of abuse. Conditions such as alcohol abuse and depression could predispose victims towards DV (Swan & Snow, 2003; Lövestad & Krantz, 2012; Mitra et al., 2016). In our results, mentions of mental illnesses in both POIs and victims were reported in almost 1 out of 5 events (18.1%). Mental illness mentions in particular for POIs (15.8%) were 4 times more than those of the male victims (4.1%), a finding that corresponds with previous research

on mental illness as a DV risk factor from the POI's part (Afifi et al., 2009; Mitra et al., 2016; Kolbe & Büttner, 2020).

Furthermore, we found out that overall mental health mentions for male victims in the narratives increased from 2005 to 2016 by 5.0%, with anxiety related disorders having a 14.5% increase which could suggest improved recording practices by the police. More specifically, depression and bipolar disorder victim mentions increased 8.0% and 7.5% respectively from 2005 to 2016. This is not surprising considering the long-term consequences of DV which have a 2.5 fold reduction in wellbeing including the onset of anxiety, post-traumatic stress disorder, depression, substance abuse, and suicidal ideation (Hines & Straus, 2007; Afifi et al., 2009; Hines & Douglas, 2011). Indeed, mood disorders was the most common mental illness group for victims (32.8%) which corresponds to the existing literature that suggests that men exposed to any physical or psychological abuse within a DV setting are almost twice likely to develop depressive symptoms (Coker et al., 2002).

Informing existing support systems and design new ones

The above findings highlight the complex experience of male victims in police-attended DV events and although the numbers are population based for the entire state of NSW over a twelve-year period, these likely represent the tip of the iceberg as most DV goes underreported. This could be the case more so for male victims than females (Stets & Straus, 2017). However, these insights offer a new perspective regarding DV involving male victims and suggest the need to better record and understand the nature of such abuse. Studies have suggested that male victims may benefit from preventive and informative public policy campaigns (Carmo et al., 2011). This type of insights can initiate the re-design of DV screening tools used by front-line agencies (e.g., police) to be aware of the experiences and perceptions male victims have of the criminal justice system and the need to create more inclusive strategies to assist them since some of the types of DV differ for males (e.g., forced penetration, threats to use courts against males because they won't be believed) (Dim & Lysova, 2022).

Limitations

The study has several limitations. It is known that male victims involved in DV are reluctant to disclose abuse for reasons including social stigma, ridicule and a misunderstanding of what constitutes DV (Carmo et al., 2011; Drijber et al., 2013; Dutton & White, 2013; Thureau et al., 2015; Walker et al., 2020). Therefore, the numbers presented here could be under-reported in terms of the true prevalence of male DV victims. A recent review of 23 studies reinforced previous findings that identified

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that men as less likely than women to make both formal and informal disclosures of DV victimisation (Kim et al., 2024). The prevalence of female DV may be also underreported due to their self-stigma, shame, self-blame, self-guilt, and normalization of violence (Fanslow & Robinson, 2010; Kennedy & Prock, 2018; Sinko et a., 2021).

Another limitation concerns the remit of attending police officers who primarily record visible or reported (by the victim) injuries and protect the victim. As such, less visible forms of DV involving verbal, social and financial forms of abuse are less likely to be included in the narratives unless they were clearly observable when police attended an event. In addition, stalking was not included in our original narrative sample. If they had been included, it is possible that our text mining results might have been different.

This study could not identify the co-occurence of male and female victimization. In the case of mutual violence between male and female, violent behavior for self-protection by both men and women could be considered (Babcock et al., 2019). Therefore, further research using male and female partner data would be necessary to identify accurately the actual situation of violence.

Although the text mining method produced a strong performance in the identification of victim injuries, abuse types and mental illness mentions, it still generated a number of false negatives (i.e., incorrectly ignored by the method mentions of abuse, victim injuries and mental illness) if they were not explicitly stated in text or if they were based on syntactical patterns that were not covered by the implemented rules (Karystianis et al., 2019). Finally, the mental illness mentions in the events should be taken with caution as these data rely on self- or third-party reports to attending police officers.

Conclusion

This study examined text mined information from 416,441 police-attended DV event narratives and focused on the results on 13,896 DV events involving adult male victims in an intimate relationship with female POIs. The findings represent population level data and how that in 7.3% of all DV events involving the police, an adult male was the victim with the abuse type being similar to that involving female victims. Our findings align with existing studies that suggest that female POIs tend to use objects/weapons to harm the victims as opposed to male POIs, employ verbal abuse and perform minor actors of physical violence such as scratching and biting. Several injury types were recorded although most were of minor nature involving cuts and bruises. Almost one out of 5 events mentioned a mental illness for the victims and/ or POIs with victims having an increase in anxiety and mood disorders (e.g., depression, bipolar disorder) across time. Female POIs had 4 times more mentions than male victims indicating that mental illness could be a risk factor for the onset of abuse. The above presented information at a population level highlights the need to make social services and the police aware that men are also victims of DV with work required to provide male victims the appropriate support.

Abbreviations

DV Domestic Violence
IPV Intimate Partner Violence
NSW New South Wales
NSWPF New South Wales Police Force
POI Person of Interest

Supplementary Information

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Supplementary Material 1

Author contributions

GK: Conception and initialization, methodology, data analysis, result interpretation, manuscript preparation and revision. SK: Result interpretation, manuscript preparation and revision. FL: Result interpretation, manuscript revision. LS: Result interpretation, manuscript revision. TB: Study conception and initialization, result interpretation, manuscript revision. All authors read and approved the final manuscript.

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Data availability

Our dataset is not available due its sensitive nature and strict access protocols.

Declarations

Competing interests

The authors declare that they have no competing interests.

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