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**The Prevalence, Risk Factors and Psychosocial Consequences of
Intimate Partner Violence**

Natasha Joksimovic, B.A. (Hons)

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Head of Department: Prof. Deirdre Desmond

Research Supervisor: Prof. Philip Hyland

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Publications arising from this thesis

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Abstract

Intimate partner violence (IPV) is defined by the World Health Organization as any behaviour within an intimate relationship that causes physical, sexual or psychological harm. Much of the extant research focuses on female survivors of IPV, with much less focusing on male survivors of IPV. The overarching goal of this thesis was to better understand the measurement, prevalence, risk factors, and psychosocial consequences of IPV for both men and women. This thesis utilises two nationally representative samples of adults from the Republic of Ireland and Ontario, Canada. After an extensive assessment of the psychometric properties of a self-report measure of IPV, it was found that approximately one-in-three women and one-in-four men in Ireland, and one-in-three women and one-in-six men in Ontario, experienced IPV within their lifetime, with women having more varied and diverse IPV experiences than men. Risk-factors for IPV were identified for males (e.g., having children & low social support) and females (e.g., having children & lower income), and IPV experiences were shown to be positively associated with multiple negative mental health variables (e.g., suicidal ideation, internalizing distress). Findings indicate that loneliness, but not social contact, partially mediated the association between IPV and internalizing distress. The factors involved in male and female victims' decisions to stay with or leave their abuser were investigated, with results finding that feelings of guilt, shame, or embarrassment, and having a safe place to go were the most cited reasons for staying or leaving, respectively. Finally, it was shown that symptoms of depression could be measured equivalently for those with and without a history of IPV. This thesis provides methodologically rigorous data about the valid and reliable measurement of IPV, its prevalence in the population,

associated risk factors, and gender specific details about why people remain with or leave abusive partners.

Chapter 1

Introduction

1.1 Chapter Summary

Intimate partner violence (IPV) is a global phenomenon and a major public health issue with an estimated 736 million women being affected by IPV globally (World Health Organisation [WHO], 2021). This equates to approximately 18% of women. IPV refers to any behaviour within an intimate relationship which causes physical, psychological or sexual harm (Stein et al., 2022; WHO, 2013). Victims of IPV are at a significantly greater risk of experiencing a range of physical, social and psychological health problems as a result of their abuse (WHO, 2021). This thesis intends to thoroughly examine all facets of IPV victimisation, for both men and women, in order to provide up to date information on the prevalence of IPV, associated risk factors for victimisation, the psychosocial consequences of experiencing IPV as well as exploring the reasons for staying in or leaving an abusive relationship.

1.2 What is Intimate Partner Violence?

1.2.1 History of the terminology

The term “intimate partner violence” evolved over time from historic terms such as “battered women syndrome”, “wife abuse” and “wife battering” (Ali et al., 2016; McHugh & Frieze, 2006). Most research in this field began in the 1970s when the problem of husbands beating their wives was being recognised and brought to public attention (McHugh & Frieze, 2006). Once the silence was broken on wife battering, more victims came to light of all genders, relationship status’ (non-married and married partners) and sexuality, and so these terms could no longer be used as they were no longer inclusive. And so, the terms “domestic violence”, “spousal abuse” and “family violence” were coined (McHugh & Frieze, 2006).

“Domestic violence” (DV) is still commonly used across research and is widely known by both the lay public as well as academic and advocacy bodies when referring to violence between intimate partners. For a long time, research on IPV was carried out under

this title, however, the Centres for Disease control and Prevention (CDC) rightfully suggested the use of the term “intimate partner violence” instead when dealing with violence within an intimate relationship to more accurately describe this form of violence (Saltzman et al., 1999). The reason for this being that “domestic violence” encompasses so much more than just violence between partners thus the term IPV was developed to distinguish it from other forms of domestic abuse which may happen in the home such as child abuse or elderly abuse (Mitchell & Anglin, 2009). This thesis seeks to investigate patterns of abuse which may take place within romantic relationships, with the author having a keen interest in romantic relationships and their functioning. Thus, the phenomenon of IPV, rather than that of DV will be examined.

However, there is still much disagreement about specific acts that are indicative of IPV. This variation in the definition of IPV is driven and influenced by the different perspectives and conceptualisations that exist in regards to IPV. This is often dependant on one’s background, training, research methods and field of study (Mitchell & Anglin, 2009). The most prominent perspectives of IPV are the feminist perspective and the family violence perspective. The feminist perspective of IPV focuses on an aggressive, dominant male, exerting power and control over a female partner. As such, gender asymmetry is central to this conceptualization of IPV (Cares et al., 2024; Mitchell & Anglin, 2009). In other words, the feminist view of IPV is of a manifestation of patriarchal power (Anderson, 2005). Feminist researchers tend to prefer terms such as “women battering” over more general terms such as domestic violence or IPV as they do not express the dimensions of gender and power that they believe are fundamental to understanding abuse of women (McHugh & Frieze, 2006).

On the other side, those who argue for gender symmetry in IPV are known as family violence researchers. They believe that IPV is perpetrated equally by men and women, often

as a result of conflict, poor communication and poor conflict resolution skills (Cares et al., 2004; Straus, 2011). They prefer the terms “Domestic Violence”, “Intimate Partner Violence”, “Family violence” and “Spousal Abuse” rather than the terms favoured by feminist researchers such as “wife abuse”, “women battering”, or the later developed “dating violence” or “Lesbian battering”, as these more general terms are more gender and relationship inclusive. Additionally, the more general, wide blanketing terms limit the risk of dividing and isolating victims by giving each victim’s experience a different name based on the minor differences in the nature of their abuse (McHugh & Frieze, 2006). Family violence researchers thus view gender as just one component of IPV and not a key process of it (Anderson, 2005).

Nevertheless, it is not just in relation to gender symmetry that there is disagreement within the field of IPV research, but also in the general acceptance of what types of behaviours fall under IPV. Some researchers, such as many feminist researchers, tend to focus more on purely physical violence whereas others acknowledge that physical violence is not the only way to exert power and control (Cares et al., 2024). Indeed there is a lot of debate across IPV research on what type of behaviours constitute as IPV with the term “violence” itself being at partial blame. This is due to the fact that it can often be misconstrued to mean physical violence and to not include acts of emotional violence (or abuse) or sexual violence (O’Connor, 2020). The variability in the definitions and what researchers view and consider to be IPV has led to a lot of difficulty in understanding IPV literature.

1.2.2 Attempts to reconcile the different perspectives

Typologies

In order to try and reconcile the conflict between the different perspectives of IPV, particularly those of the feminist and family violence perspectives, Johnson (1995) proposed

a framework of multiple typologies of IPV. His typologies are the most influential of those proposed so far, appealing to many working in the field of IPV, as it has allowed for a harmonising of perspectives leading to more productive discussions (Anderson, 2009; Ali et al., 2016; Mitchell & Anglin, 2009). In this way, Johnson's typologies attempt to address the gender symmetry debate in IPV research (Cares et al., 2024). Initially Johnson proposed two forms of IPV, patriarchal terrorism and common couple violence (Johnson, 1995), however, these were revised and expanded to become Intimate Terrorism (IT) (otherwise known as Coercive Controlling Violence [CCV]), Situational Couple Violence (SCV), Violent Resistance (VR) and Mutual Violent Control (MVC) (Cares et al., 2024; Johnson, 2008; Johnson et al., 2014).

Coercive Controlling Violence (CCV)

Johnson defines CCV as any acts, including violence, or attempts to dominate or control one's partner in order to exert power and control over the partner and the relationship (Cares et al., 2024; Johnson, 2008). It typically refers to patterns of emotional abuse such as acts of intimidation, control, manipulation, stalking and coercion in combination with physical violence (Ali et al., 2016; Kelly & Johnson, 2008). CCV is usually more severe, tending to be more frequent and to escalate over time. This lends itself to resulting in greater mental health problems as well as higher levels of injury, fear and help-seeking behaviours (Cares et al., 2024). This form of violence fits the more common and classical view of IPV and is most frequently seen by those working in agency settings such as hospitals, shelters, and law enforcement (Ali et al., 2016; Kelly & Johnson, 2008; Mitchell & Anglin, 2009). It is assumed that CCV is more largely perpetrated by men against women, previously being coined patriarchal terrorism, however, research has found women to also be perpetrators of

this type of violence in both heterosexual and same-sex relationships (Ali et al., 2016; Beck et al., 2013; Migliaccio, 2002; Renzetti, 1992).

Situational Couple Violence (SCV)

SCV is defined as any act of violence that “*is not embedded in a general pattern of controlling behaviours*” (Mitchell & Anglin, 2009, p. 25). Typically arising as a result of limited conflict management skills whenever a conflict escalates, rather than as part of a larger attempt at control in the relationship (Cares et al., 2024; Johnson & Ferraro, 2000). Unlike CCV, SCV usually involves more minor forms of violence, and the frequency and intensity of this type of violence does not tend to increase over time (Ali et al., 2016). Perpetrated at equal rates by both men and women, SCV is the more commonly seen type of IPV within the general public. It can include acts of physical violence as well as verbally abusive acts such as shouting, cursing and derogatory name calling (Ali et al., 2016; Cares et al., 2024; Kelly & Johnson, 2008). Due to the lower severity and frequency of SCV compared to CCV, it is less strongly associated with negative mental health outcomes, injury and help-seeking behaviours.

Violent Resistance (VR)

VR occurs when a victim of violence uses violence as a form of self-defence to resist further violence from a coercive controlling partner (Ali et al., 2016; Beck et al., 2013; Cares et al., 2024). VR is a reaction to violence and it not an attempt to exert power and control over a partner but rather an attempt at defence (Johnson & Ferraro, 2000). Feminist researchers typically view all types of violence perpetrated by women against a male partner as a form of VR, however, Johnson acknowledges that just as CCV can be perpetrated by men or women, so can VR (Ali et al., 2016; Kelly & Johnson, 2008). Although both men and

women can be preparators of VR, it is still more commonly perpetrated by women against male partners.

Mutual Violent Control (MVC)

Lastly, MVC refers to when both partners perpetrate violence in an effort to exert power and control over their partner. This form of IPV is gender-balanced in its perpetration however Johnson does hypothesise this form of violence to be quite rare (Cares et al., 2024; Johnson & Ferraro, 2000; Mitchell & Anglin, 2009). Due to its rarity, little is known about its frequency, severity or consequences (Johnson, 2001; Kelly & Johnson, 2008).

1.2.3 Importance of definition agreement

The way in which one defines IPV often determines how they measure it (Mitchell & Anglin, 2009). This in turn dictates what conclusions are drawn from the research findings, affecting research focused on prevalence rates, patterns, gender differences and psychosocial consequences of IPV. The lack of a single, unified and accepted definition obscures understanding of what IPV is, leading to ambiguity, which thus impacts the reliability and validity of IPV research (Walker & Gavin, 2011)

1.2.4 The lack of research on the male experience

Even with Johnson's typology attempting to address gender symmetry in IPV, the gender symmetry debate persists (Cares et al., 2024). Globally, IPV is widely viewed as a gendered issue (WHO, 2010), and so much of what is currently understood about IPV comes from female centred samples; in particular, cis-gendered heterosexual women with male abusive partners (Scott-Storey et al., 2023). Although most research which examines both

male and female IPV experiences has shown that men and women experience IPV at fairly equivalent rates (e.g. Desmarais et al, 2012; Fiebert, 2018; Willie & Kershaw, 2019), the experience of male IPV victims remains vastly under-researched in comparison to female victims (Arnocky, 2014; Cook, 2009; Scott-Storey et al., 2023).

The vast majority of IPV victimisation research is based on the traditional gendered (or feminist) view of IPV focusing on female victims in opposite-sex relationships (Laskey et al., 2019; Morin, 2014). This remains true despite some evidence suggesting that the most common form of abuse is bi-directional, followed by women being more likely to perpetrate abuse against their partner than men (Desmarais et al., 2012; Langhinrichsen-Rohling et al., 2012; O'Connor, 2020; Straus, 2010). However, research suggests that when women do perpetrate violence against men, this may go unreported or even unrecognised as these abusive behaviours may not always be perceived as abusive by men (Hogan, 2016; Scott-Storey et al., 2022). The traditional view of “pure victims and evil villains” still remains the dominant view of IPV (Loseke, 2001, pg 107). The lack of acknowledgement of men as victims leads to less advocacy which in turn leads to a lower public opinion of male victims. Many studies have shown that the public view both a male abuser and a male victim of abuse in a negative light, finding them to be morally responsible in both instances (Bates et al., 2019; O'Connor, 2020; Willis et al., 2019), whereas female abusers are often viewed as being justified in their abuse (Wilchek-Aviad et al., 2019). This may be linked to lower reported help-seeking behaviours among male IPV victims which some studies have theorised is due to feelings of embarrassment, shame, fear of stigmatisation as well as fear of being label as the initiator of violence (Scott-Storey et al., 2022; Tsui et al., 2010). These difficulties in identifying experiences of IPV in male victims, along with the perceptions and fears around gender stigmatisation can not only lead to the avoidance of help-seeking behaviours and disclosure of abuse by male victims, but can impede men’s ability to feel comfortable

showing emotional vulnerability (Hines, 2015; Scott-Storey et al., 2022). This highlights the need for more gender balanced and gender inclusive IPV research to help to better understand this social phenomenon and to reduce this stigma surrounding male IPV victims.

1.2.5 Coercive control as a model of IPV

IPV has frequently been described as an attempt to gain and maintain power and control over the victim, otherwise known as coercive control (Hamberger et al., 2017; Shepard & Pence, 1999; Stark, 2007). Early studies viewed coercive control through a feminist lens. Stark has been one of the most influential researchers in this area, stating that domestic violence or coercive control is better conceptualised as men's attempt to restore the patriarchy and its values within intimate relationships while simultaneously diminishing the self-worth and independence of their female partner (Arnold, 2009; Stark, 2007). His work centres on male oppression, abuse and control of women within heterosexual relationships, being deeply rooted in feminist theory. Stark heavily links coercive control to gender inequality and societal gender norms believing that gender inequality and discrimination are central to coercive control (Cowan, 2011; Stark, 2007). He suggests that gendered social structural inequality left women more vulnerable to coercive control (Anderson, 2009; Stark, 2007).

In regards to how coercive control operates, Stark describes how one utilises both direct and indirect tactics in order to control and dominate the abused. These tactics include physical violence and intimidation (direct tactics) as well as isolation, economic control and deprivation, manipulation and micro regulation (indirect tactics) (Stark, 2007; Tolmie et al., 2024). These acts, repeated over time, work to diminish the victim's sense of self, making them more compliant and dependent on the abuser, thus making them less likely to fight back (Hamberger et al., 2017; Stark, 2007; Tolmie et al., 2024).

However, this gendered approach has faced criticism and controversy due to the emerging evidence that self-reported IPV perpetration from men and women appear to be symmetrical (Hamberger et al., 2017). This has led researchers to argue that coercive control should either be separated from gender (Felson & Outlaw, 2007) or that there are different motivators for coercive control for men and women and that these should be studied (Dobash & Dobash, 2004; Hamberger et al., 2017).

The concept of coercive control as a model of IPV allows for a better understanding of the abuse tactics used by abusers and how these tactics over time work to diminish the victim's autonomy, eroding their will to take action against their abuser (Sharp-Jeffs et al., 2018; Tolmie et al., 2024). It has allowed an insight into the motivations behind IPV, the patterns of abuse that may take place, and the impact these can have on victims. It has demonstrated that IPV and coercive control are not simply about isolated incidents of abuse, but about a repeated pattern of co-ordinated behaviours in order to gain control (Barlow & Walklate, 2022; Tolmie et al., 2024). This has been highly influential in the development of government and judicial policies, helping to provide better defence, support and services for victims (Arnold, 2009; Tolmie et al., 2024).

1.2.6 Operational definition

The most widely accepted definition of IPV, and the definition that will be used for the purposes of this research, comes from the World Health Organization which defines IPV as “any *behaviour within an intimate relationship that causes physical, sexual or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse and controlling behaviours. This definition covers violence by both current and former spouses and partners.*” (WHO, 2013). This definition was chosen for the purposes of this study as it provides the most comprehensive definition of IPV encompassing all aspects of

potential abusive behaviours. Its terminology also allows for the inclusion of all forms of victims and perpetrators without restrictions of gender, marital status or sexuality of those involved (Ali et al., 2016).

1.2.7 Types of abuse involved in IPV

Physical Abuse

Physical violence is the most commonly recognised form of IPV and is often perceived to be one of the most severe types of IPV (Medinilla-Tena, Badenes-Sastre & Expósito, 2025; Wilson & Smirles, 2020). It is experienced by both men and women alike, although the severity and threat posed varies for each. It typically refers to any use of physical force to inflict pain, fear or injury (Ali et al., 2016). The type and level of severity of the violence needed to be viewed as IPV however varies depending on the researcher (Mitchell & Anglin, 2009). Acts such as pushing, shoving, slapping, grabbing, beating, kicking, biting, shaking, choking, scratching, hitting with a fist or object and/or threatening or using a weapon such as a knife or gun all constitute as examples of physical violence within an intimate relationship (Ali et al., 2016; Drijber et al., 2013; Scott-Storey et al., 2023; WHO, 2005). There are disagreements on whether single acts of violence, especially more minor instances, such as slapping should be included as IPV with feminist researchers advocating that it must be a pattern (Mitchell & Anglin, 2009).

Sexual abuse

Sexual abuse includes any attempt to force or coerce a partner into engaging in any unwanted sexual acts or activities including, but not limited to, rape, forced sex, coercion into having unprotected sex, harming a partner during a sexual act or forcing a partner to do something degrading or humiliating. This can be done through use of physical force, threats,

pressuring and manipulation to name a few (Ali et al., 2016; Bates, 2020; WHO, 2005).

Sexual abuse within an intimate relationship can look a little different for men and for women. In regards to “rape” and “forced sex” women are much more likely to be victims in comparison to heterosexual men, however, men and women seem to have more equal victimisation rates of being coerced into sex, engaging in unwanted sexual acts or being forced to penetrate (Bagwell-Gray et al., 2015; Scott-Storey et al., 2023; Struckman-Johnson & Struckman-Johnson, 1998). When non-heterosexual relationships are taken into account, these victimisation rates of both men and women start to balance out even more (Dickerson-Amaya & Coston, 2019; Scott-Storey et al., 2023)

Psychological Abuse

Not all IPV researchers or definitions of IPV include psychological abuse however it is a key element of IPV, being shown to have a great impact on a victims’ health outcomes (Mitchell & Anglin, 2009). Psychological abuse, also known as emotional abuse, involves any acts, behaviours, threats or coercive tactics that are used to humiliate, control, degrade or isolate an intimate partner in public or in private (Ali et al., 2016; Scott-Storey et al., 2023; WHO, 2012). Evidence suggests that psychological abuse is one of the most commonly experienced forms of IPV, especially for men (Follingstad & Rogers, 2013; WHO, 2012). This can include insults, verbal abuse, belittling, constantly criticizing or humiliating, threats of harm to the person, children or loved ones, intimidation, monitoring or controlling of movements, isolation from friends and family, threats to take away children, stalking behaviours, restricting independence or access to resources, gaslighting and manipulation and/or restriction of access to education or health services (Bates, 2019; Bates, 2020; Drijber et al., 2013; Scott-Storey et al., 2023; WHO, 2002; WHO, 2012). Economic and financial abuse are a subcategory of psychological abuse which involves restricting access to bank

accounts, spending money and resources, forcing the victim to be financially reliant on the abuser, making it harder for them to leave (Walker et al., 2019).

1.3 Prevalence

The exact prevalence of IPV in the population is difficult to ascertain due to a number of issues such as different definitions of IPV, measurement differences, the type of data used, differences across cultures and the lack of gender inclusion when measuring IPV.

As discussed, the lack of consensus on what constitutes IPV has led to inconsistencies across studies attempting to determine the prevalence of IPV. For example, the generally accepted average global prevalence rate of women who have experienced at least one episode of sexual and/or physical abuse by an intimate partner within their lifetime is around 30% (Devries et al., 2013; Heise & Hossain, 2017; Watts & Zimmerman, 2002; WHO, 2021). However, these rates vary greatly between countries and regions and often only take into account sexual and/or physical abuse, but do not take into consideration psychological abuse. Thus, this may not be an entirely accurate representation of the true scope of women's global IPV prevalence rates.

The method and type of data used also greatly affects the prevalence rate a study may find. There can be great variation found in prevalence rates based on the type of data one collects and studies. Official statistics such as police reports, crime statistics and hospital records may find very different prevalence rates compared to self-report data obtained from nationally representative samples. This is because official statistics often only capture the most severe cases of IPV and thus may be a gross underrepresentation of the true figures (Palermo et al., 2014). Furthermore, the use of official statistical data requires there to have been official disclosure of abuse. However, some research has found that while 40% of women had disclosed their abuse to another person, only 7% of them did so to an official authority (Heise & Hossain, 2017; Palermo et al., 2014).

Underreporting can also be a problem with self-report measures alongside this with responders potentially being reluctant to tell the truth due to fear of being judged, endangered or penalised, as is the case with many sensitive topics (Blair et al., 2020; Cullen, 2022). The type of measure and methods used also matters, with face-to face interviews often finding the lowest prevalence rates and anonymous surveys finding some of the highest rates (Cullen, 2022; Follingstad & Rogers, 2013). Thus, it is often best to consider both official police statistics as well as multiple kinds of self-report data when attempting to investigate the prevalence rates of IPV within a large population such as a country.

It is also important to note that IPV prevalence rates can vary greatly across different areas and regions for many different reasons ranging from culture differences/norms to the socio-economic status of the country or area. Distribution of IPV rates vary by region, with regions within Oceania such as Melanesia, Micronesia and Polynesia having the highest estimate lifetime prevalence rates among ever-partner women aged 15-49 (51%, 41% and 39% respectively) and areas such as southern Europe, central Asia, eastern Europe and eastern Asia having the lowest (16%, 18%, 20% and 20% respectively) (WHO, 2021). Low-income and middle-income countries are shown to have the highest prevalence of IPV, but the difference in comparison to high income countries is much greater when past year IPV experiences are taken into account rather than just lifetime experiences (WHO, 2021). These difference can in part be explained and made sense of by things such as the economic insecurity, gender inequitable norms, societal stigma, inadequate support systems and discriminatory family laws commonly found in these regions, which have been shown to be associated with increased IPV rates and women's abilities to leave abusive relationships (Fulu et al., 2014; Sardinha & Catalán, 2018; Sardinha et al., 2022).

Finally, one of the most pervasive issues when examining IPV prevalence rates is the lack of inclusion of male victims of IPV. Most research conducted on IPV involves female

participants only, leading to an under-representation of the male experiences of IPV. This is especially evident when trying to discern the true rate in which IPV occurs within the entire population. The most in-dept global study and measurement of IPV, conducted by the WHO, did so only on women (WHO, 2021). Very few studies include both male and female experiences when measuring prevalence rates of IPV. Instead, most of the data that exists on male prevalence rates comes from studies which look exclusively at male IPV experiences in isolation. Thus, while there may be estimated figures of female global prevalence rates (roughly 30% with a range of 23%- 37%) and male prevalence rates range from 19%-31% depending on the country and region (Desmarais et al., 2012; Willie & Kershaw, 2019; WHO, 2021), and we have very little information on adult IPV prevalence rates as a whole. Many more studies examining both male and female victims of IPV are needed in order to get a clearer idea of the true scope of the problem of IPV.

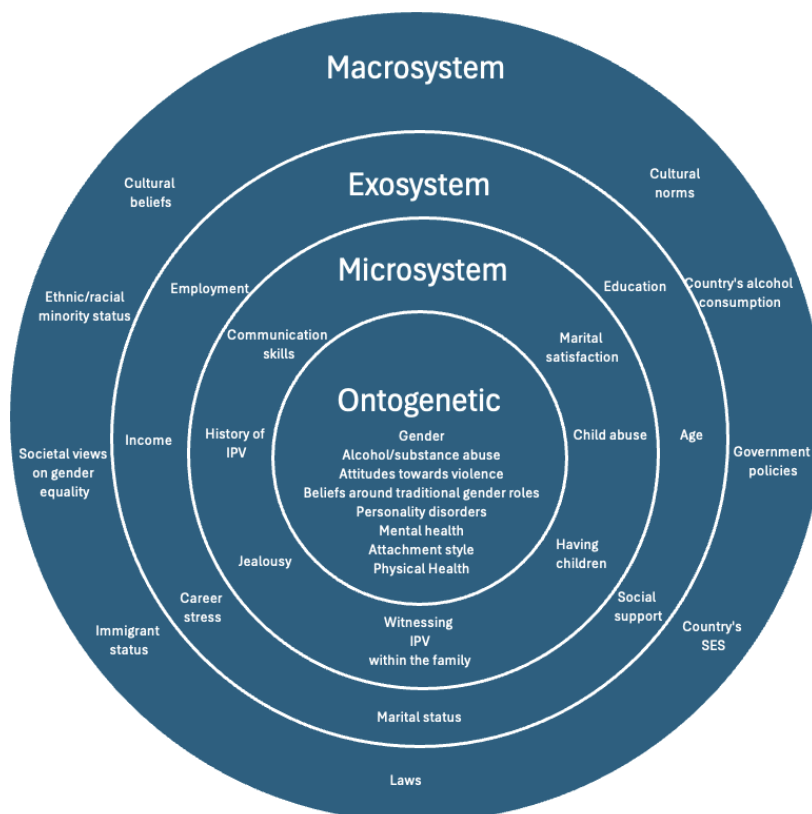
1.4 Risk factors

A commonly used theoretical framework for examining IPV risk factors is Dutton's (1995) nested ecological model which highlights how IPV is a multi-factorial phenomenon with no single factor being able to predict it (Spencer et al., 2019; Stith et al., 2004). Many aspects of one's environment and how these interactions work to shape the individual are studied at four different levels: macrosystem, exosystem, microsystem and ontogenetic (Dutton, 1995).

The macrosystem is the broadest level in the model as it refers to societal factors relating to where the individual lives. This can include cultural beliefs, attitudes and norms as well as the laws that may exist (Dutton, 1995; Dutton, 2005; Spencer et al., 2019; Stith et al., 2004). The exosystem focuses on the individual's formal and informal social structures such as their work environments, friendships, social supports and any institutions they, or their family, may encounter. The third level is the microsystem which relates to factors within the

individual's immediate environment in which the abuse occurs. This includes factors such as family dynamics, relationship dynamics, previous abuse and consequences of abuse. Lastly, the ontogenetic level relates to the individual themselves and their developmental history. Factors which can be investigated at this level include characteristics such as their own attitudes and beliefs, their mental health, attachment style, substance use as well as their gender. These are factors that influence how the individual acts and responds to factors and stressors in their microsystems and exosystems (Dutton, 1995; Dutton, 2005; Spencer et al., 2019; Stith et al., 2004). Figure 1 provides a visual display of how the models are nested into one another while also demonstrating the type of factors which belong in each level.

Dutton's nested ecological model can be used to investigate both IPV perpetration, as most notably done by Stith and colleagues (2004), and IPV victimisation, most extensively studied by Spencer and colleagues (2019). However, often times studies tend to exclude the risk factors relating to the macrosystems as they believe that focusing on the other levels of Dutton's model would have more clinical and therapeutic value for helping those who have been affected by IPV (Spencer et al., 2019). This has led to there being much less extensive existing research on this topic.

Figure 1*Risk factors associated with IPV*

Macrosystem Factors

While less studied in empirical studies relating to IPV, there are some macrosystem factors which have been linked to IPV. These can include a country's alcohol consumption (Colorado et al., 2016), cultural norms and beliefs around gender equality (Sheng, 2020), being an immigrant (Colorado et al., 2016), ethnic/racial minority status (Rennison & Welchans, 2000), the socioeconomic status of the community (Beyer et al., 2015) and government policies and laws (Decker et al., 2013; Hardesty & Ogolsky, 2020). Increases in country level education and enforced country level laws relating to IPV have been found to be protective factors against IPV, with potential collaborative links between the two being established in that providing more education will allow victims to be better able to utilise the

available legal protections (Decker et al., 2013; Hardesty & Ogolsky, 2020). However, much of the existing research which looks at the effects of the macrosystem can contradict each other as it can vary community to community, country to country. For example, increases in country level wealth can act as both a protective factor, particularly for the wealthiest women, but it can also increase disparities in IPV victimisation (Hardesty & Ogolsky, 2020).

Exosystem Factors

Exosystem risk factors tend to be found to be weaker for both IPV victimisation and perpetration for men and women than microsystem or ontogenetic factors. However, factors most commonly studied from this system which have been related to an increased likelihood of IPV victimisation or perpetration include being of younger age (Capaldi et al., 2012, Spencer et al., 2019), Stith et al., 2004), lower levels of education (Cunradi et al., 2002; Stith et al., 2004), unemployment (Capaldi et al., 2012)), lower income (Capaldi et al., 2012 Stith et al., 2004)), career stress (Stith et al., 2004), length of relationship (Heron et al., 2022; Spencer et al., 2019), marital status (Spencer et al., 2019; Stith et al., 2004), low social support (Wright, 2015) and living in an urban vs rural environment (Rennison & Welchans, 2000), Spencer et al., 2019). Factors such as financial stress (lower income and unemployment) and being of younger age are some of the most commonly linked to IPV perpetration and victimisation.

Microsystem Factors

Risk markers relating to microsystems include child abuse within the family (Spencer et al., 2019), history of IPV (Kuijper et al., 2012), poor communication skills (Capaldi et al., 2012), witnessing IPV in the family of origin (Spencer et al., 2019), marital/relationship satisfaction (Stith et al., 2004), social contact (Wright, 2015), jealousy (Caldwell et al., 2009),

the presence and number of children (Romans et al., 2007). It is here that we find some of the strongest predictors of IPV with past experience of IPV being one of the strongest predictors of future IPV victimization (Kuijpers et al., 2012) as well as the presence of one form of abuse (physical, sexual or psychological) being a strong predictor for experiencing other forms of abuse as well (Spencer et al., 2019, Krebs et al., 2011).

Ontogenetic Factors

Ontogenetic risk factors include gender, alcohol or substance abuse (Cafferky et al., 2018), attitudes towards violence (Han & Choi, 2021), personality disorders (Ehrensaft et al., 2006), depression (Herbert et al., 2021; Spencer et al., 2019), anxiety (Capaldi et al., 2012; Herbert et al., 2021), mental health (Capaldi et al., 2012), attachment style (Buck et al., 2012; Sandberg et al., 2016), physical health (Spencer et al., 2019), PTSD (Spencer et al., 2019), anger (Spencer et al., 2020), fear (Stith et al., 2004), suicidal behaviours (Coker et al., 2000; Kerr & Capaldi, 2011), and beliefs around traditional gender roles and violence (Capaldi et al., 2012; Stith et al., 2004). Alcohol/substance abuse, attitudes condoning violence and having traditional sex-role ideology were some of the highest risk markers for IPV perpetration while (Stith et al., 2004) variables around mental health, alcohol/substance abuse and fear of partner are some of the more strongly linked risk markers for IPV victimisation (Spencer et al., 2019; Stith et al., 2004). However, for risk markers such as negative mental health, fear of partner, PTSD, depression and suicidal behaviours it can be particularly hard to distinguish if these are truly risk markers or if they are in fact consequence of victimisation (Coker et al., 2002; Spencer et al., 2019; Stith et al., 2004).

1.4.1 Attempts to explain why those are at risk

Dutton's nested ecological model (1995) works well to identify the risk factors for both IPV victimisation and perpetration, but other psychological theories, such as social learning theories, evolutionary theories and attachment theories can help us to further understand why these individuals and specific risk marker increase the likelihood of experiencing IPV in some way. These theories can help to further understand the impact of these relational and societal forces have on ones IPV behaviour and help us to see that IPV is not simply an individual dysfunction. What is interesting about these theoretical frameworks for IPV is that they can differ in terms of their emphasis. Some theories try to emphasise why people perpetrate IPV, other theories try to explain why certain people are more likely to at risk of becoming victims of IPV and even why people fail to leave these abusive relationships.

1.4.1.1 The Intergenerational Transmission of Violence and The Social learning theory

Previous abuse or IPV experience has consistently been found to be one of the biggest predictors of future IPV experiences (Kuijpers et al., 2012). This is true for both perpetration and victimisation. The intergenerational transmission of violence (IGT; Straus et al., 1980) and social learning theory (SLT; Akers & Jennings, 2015) provide the best theoretical background to explain this phenomenon as well as to shed on light on why people engage in IPV. Both theories attribute violence to a learned process, stressing that exposure to violence through influential role models who either perpetrate or experience IPV, especially during childhood, can lead to subsequent IPV experiences (Alexander et al., 1991; Powers et al., 2017).

IGT posits that experiencing violence in the household during childhood, either directly as a victim and/or indirectly as a witness (vicarious victimisation) leads to an

increased likelihood of engaging in IPV later in adulthood (Gómez, 2011; Hamby et al., 2012; Straus et al., 1980). This is because children learn from these experiences and observations of how their role models act and interact with each other. From this they can learn and believe that conflict and violence are normal and acceptable within a relationship and will go on to model that behaviour in their future relationships. The higher the status of the role models engaging in the violence (such as primary caregivers), the more likely it is that the individual will model their behaviour (Akers & Sellers, 2009; Bandura, 1973; Powers et al., 2017). But what about experiences and interactions that happen in adulthood? This is where the SLT comes more into play.

SLT recognises that influential socialisations can occur external to the family, with attitudes and behaviours around IPV being learned from significant others as well from the wider culture. SLT theorises that one's likelihood to engage in a criminal behaviour (in this case IPV), is influenced and reinforced by interactions with significant others (Powers et al., 2017). It suggests that criminal behaviour and conformity are learned through associations with those who engage in this behaviour, with the likelihood of engaging in the behaviour increasing when the reward for doing so outweighs the cost (Cochran et al., 2015; Powers et al., 2017). This holds true for IPV behaviours as well. Thus, socialising with those who condone or engage in IPV may increase one's chance of engaging in IPV themselves. Cultural and environmental views and reinforcement such as cultural acceptance of violence, traditional gender role and violent masculinity are also shown to be highly influential through the SLT (Krug et al., 2002).

Both IGT and the SLT highlight the importance of the transmission of beliefs, values and norms in relation to IPV, with experiences being able to shape and morph attitudes and perceptions into an acceptance, or even condoning, of violence within relationships and how this can translate to future IPV experiences (Powers et al., 2017).

1.4.1.2 Evolutionary theories

Evolutionary perspectives have offered some theories as to why IPV occurs within relationships, often predicting forms of sexual conflict that may arise within romantic relationships (Buss & Duntley, 2014). Much of the work surrounding evolutionary psychology in the context of IPV is conducted by American psychologist Dr. David Buss, culminating in a vast body of peer-reviewed research and articles as well as many books on the subject such as “*Bad men: the hidden roots of sexual deception, harassment and assault*” which focuses on examining harmful male behaviours such as IPV and infidelity through an evolutionary psychology lens (Buss, 2021). A review of his research, among others, has shown that evolutionary psychology can indeed be very helpful when investigating the aetiology of IPV.

Evolutionary perspectives describe how humans have formed many different tactics designed to keep a mate close to them and to modify and influence their behaviour to be closer to their own optimum (Buss & Duntley, 2014; Chester and DeWall, 2018). These tactics can range from benefit-bestowing tactics such as reciprocity, support, inducing pleasure or even monetary rewards (Buss, 1992; Buss & Duntley, 2011) to cost-inflicting, exploitative tactics of IPV, including manipulation, coercion and violence (Buss & Duntley, 2008; Buss & Duntley, 2011). Evolutionary theory suggests that IPV was developed as a means to facilitate survival (such as self-defence) and reproductive goals (mate guarding) as well as to address multiple adaptive problems (Buss & Duntley, 2011; Chester & DeWall, 2018). These adaptive problems include those such as mate poachers (Wilson & Daly, 1996), sexual infidelity (Daly et al., 1982), suspicions of pregnancy by another man (Burch & Gallup, 2004), resource scarcity (Wilson & Daley, 1993), mate value discrepancies, stepchildren, termination of the mateship (Shackelford et al., 2005) and mate reacquisition (Buss & Duntley, 2011).

IPV is used in order to control a partner and make the abuser feel they have more control over these adaptive issues and their outcomes. It is suggested that over time and through evolution, these violent IPV tactics and tendencies may have become ingrained in our species genetic code due to their success at times and their reproductive benefits. They highlight however that although violence may be adaptive in certain contexts, it is not morally good nor is it often a successful strategy for addressing these issues, as the cost of employing these aggressive tactics often outweigh the rewards (Buss & Duntley, 2011)

1.4.1.3 Attachment theory

Attachment theories, first developed by John Bowlby and Mary Ainsworth, describe different classifications of attachment styles relating to how a person's early attachment relationships to their primary caregiver affect a person's development and their future relationships in adulthood (Bowlby, 1988; Wallin, 2007). These classifications primarily fall into three distinct categories of attachment; secure, anxious and avoidant, with the latter two often being grouped together under the umbrella term "insecure attachment". Attachment theory plays a role in explaining IPV with insecure attachment styles being some of the most prominent risk factors for both IPV victimisation and perpetration.

Insecure attachment styles increase the chances of abandonment anxiety, separation anxiety, partner distrust and jealousy within a relationship, all of which increasing the likelihood of IPV (Allison et al., 2008; Buck et al., 2012; Buttell et al., 2005; Holtzworth-Munroe et al., 1997; Park, 2015). Each form of insecure attachment can be found to be linked with IPV. Anxiously attached individuals can be susceptible to IPV victimisation by often demonstrating a desire to pull in closer to the abuser when faced with abuse or detachment as a way of avoiding abandonment and remaining close to the abusing individual, much like a child becoming clingier when faced with a parent's rejection (Dutton & Painter, 1993). For

this same reason, anxious attached individuals may be more likely to perpetrate IPV as a dysfunctional attempt to keep the abused partner close in an emotional repose to perceived abandonment or intimate frustration (Daly & Wilson, 1988; Dutton 2008; Kuijpers et al., 2012).

Relatedly, avoidant attachment styles, particularly in women and especially when accompanied by average to high anger levels, have been linked with an increased likelihood of experiencing IPV (Kuijpers et al., 2012; Wekerle & Wolfe, 1998). This is because the avoidant behaviours that are associated with an avoidant attachment style may be viewed as rejective or dismissive, potentially provoking frustration and a maladaptive response from the abusive partner to maintain proximity.

Lastly, preoccupied attachment style was found to be predictive of both perpetration and victimisation of IPV. Those with preoccupied attachment experience a need for closeness as well as a fear of abandonment which can lead to aggressive and demanding behaviours, making them more likely to perpetrate IPV (Henderson, 2005). These individuals are also more likely to interpret negative or abusive responses during times of high conflict as a sign of their partners investment and engagement in the relationship, as they tend to experience higher levels of psychological benefit from high conflict situations, making them more vulnerable to IPV victimisation (Pietromonaco & Barrett, 1997).

Attachment theory also plays a role in a victim's decision to either stay with or leave an abusive partner. Individuals with a high attachment anxiety or a preoccupied attachment style are more likely to stay in an abusive relationship than those with a secure attachment style (Allison et al., 2008; Park, 2015). This may be because those who are insecurely attached are much more likely to experience an increased intensity of attachment known as a traumatic bond through the intermittency of abuse mixed in with good behaviour from the abuser within the relationship (Dutton & Painter, 1993; Park, 2015).

1.4.1.4 Feminist Theory

Feminist theories began in the early 1970s with the rise of the ‘Women’s Liberation Movement’ and was one of the first movements and theories to draw public attention to the problem of IPV (Ali et al., 2013; Walker, 2006). The feminist perspectives have historically been one of the most influential early theories of IPV as it led to the development of intervention and advocacy programmes for female victims of IPV, aiding in the establishment of women's shelters and the addition of IPV as a criminal offence (Ali et al., 2013; McPhail et al., 2007). As mentioned previously, feminist theories almost exclusively focus on female victims of IPV by male perpetrators, with gender asymmetry in IPV being a central belief of feminist theorists. They believe that IPV is coercive control tactic employed by men which roots stem as a product of a patriarchal society and male oppression of women, and that any violence committed by a woman is almost always an act of self-defence (Barnett et al., 1997; Cares et al., 2024; McPhail et al., 2007). Feminist theories have proposed explanations for IPV such as the patriarchy, the cycle of violence and learned helplessness (Ali et al., 2013).

A central ideology of feminist theory is that IPV stems as a result of patriarchal power and control, and that a patriarchal society can lead to the encouragement and acceptance of IPV perpetration against women (Ali et al., 2013; Smith, 1990). The patriarchy represents men’s “systemic dominance of women” (Ali et al., 2013), which in turn allows for the justification and acceptance of wife battery and abuse, believing it to be a way of exerting and maintaining male dominance within the household. Research suggests that those who believe in the patriarchy are not only more likely to view IPV against a female partner as acceptable, but to view it as beneficial and that the women being abused are responsible in some way for the abuse they suffer, having done something to ‘deserve’ it (Ali et al., 2013; Glick et al., 2002; Smith, 1990).

The cycle of violence was proposed to help explain why women stayed with their abusive partner by Walker in 1979. This suggests that abusive relationships cycle between three stages; tension building, explosion, remorse and forgiveness, typically followed by a honeymoon phase (Walker, 1979). This repeated cycle can leave the women stuck in a loop, affecting their decision-making abilities as they believe that “this time may be different” during the honeymoon phase whilst the abuser feels remorse. The cycle of violence theory suggests that women start to blame themselves for the abuse and develop feelings of fear and helplessness (Ali et al., 2013; Walker, 1979).

Leading from this is the theory of learned helplessness and how feminist theories link it to IPV. Learned helplessness was first proposed by psychologist Martin Seligman in the 1960s following his experimental work with dogs (Seligman & Maier, 1967). The theory of learned helplessness states that when a person is exposed to repeated, uncontrollable stressful or negative situations, this leads the person to eventually accept their fate and become less motivated to take action to try and change their circumstance (Maier & Seligman, 1976). In the context of IPV, this suggests that after continuous and repeated acts of abuse, a woman will eventually stop responding and instead becomes more passive (Ali et al., 2013; Walker, 1979). Research suggests that IPV experience can affect women’s ability to perceive success, believing that their actions can only generate negative outcomes, not positive ones. This has been used to try to explain why these abused women never try to leave their abusive partner (Walker, 1979).

1.5 Consequences of IPV

Exposure to IPV can have detrimental effects on the victim’s mental and physical health. It is thought that violence perpetrated by an intimate partner causes much more psychological harm than violence perpetrated by someone unknown as there is a significant betrayal of trust, making it that much more harmful than other forms of violence (Herman,

1992). Those who have experienced IPV are significantly more likely to suffer from a range of mental and physical health problems as a result of their abuse such as physical injury (Thomas et al., 2021), traumatic brain injury (Ivany et al., 2018), somatic symptoms (Iloson et al., 2021), declining physical health (Coker et al., 2002), migraines (Campbell et al., 2018), chronic pain (Haber, 1985), posttraumatic stress disorder (PTSD) (Nathanson et al., 2012), depression (Watson & Bitsika, 2025), anxiety (Sackett & Saunders, 1999), alcohol/substance misuse (Cafferky et al., 2018), suicidal thoughts and ideation (Wolford-Clevenger et al., 2016), prenatal depression (Shamblaw et al., 2019), and eating disorders (White et al., 2023).

As many as 23-60% of IPV victims have been estimated to report having mental health problems (Okuda et al., 2011). These effects hold true for both men and women (Lagdon et al., 2014; Coker et al., 2000; Coker et al., 2002). However, despite the broad range of consequences of IPV victimisation, some of the most prominent consequences of IPV include injuries and decline in physical health, PTSD, depression and drug/alcohol abuse (Nathanson et al., 2012; Woods, 2005, Coker et al., 2002).

1.5.1 Injury and Physical health

Lifetime experience of IPV has been linked to poor health status for both men and women, with physical IPV and the power and control forms of psychological IPV having the strongest associations (Coker et al., 2002). Physical and psychological IPV are strongly associated with being injured for both men and women, and IPV experiences can potentially lead to chronic diseases in some cases, which can interfere with daily activities (Coker et al., 2002). It is noted that many physical symptoms of poor health reported by women in particular are similar to those experienced by those with anxiety and depression, further emphasising the relationship between IPV and both mental and physical health (Coker et al., 2002; Resnick et al., 1997).

IPV can affect physical health both directly and indirectly. Repeated physical assaults often directly lead to increased injuries and chronic health conditions such as chronic pain, brain injury, osteoarthritis and headaches (Campbell & Lewandowski, 1997; Coker et al., 2000; Coker et al., 2002; Ivany et al., 2018; White et al., 2024) with the intensity of these health problems increasing with the intensity and frequency of the abuse. However, the constant psychological stress associated with any form of IPV victimisation can also indirectly affect physical health (Coker et al., 2002; Smith & Gittelman, 1994).

1.5.2 PTSD

Posttraumatic stress disorder (PTSD) is a WHO recognised disorder which develops following the experience of a traumatic event or series of events, such as an event of an extremely horrific or threatening nature, which can include IPV (*ICD-11*: WHO, 2022). PTSD, as described by the ICD-11, is defined by symptoms of re-experiencing the trauma in the present, a persistent sense of current threat, and an avoidance of trauma reminders. Research suggests that anywhere between 31 and 84.4 percent of female victims of IPV experience symptoms of PTSD (Nathanson et al., 2012; Golding, 1999; Scheffer Lindgren & Renck, 2008), with victims also reporting significant levels of mild to severe PTSD (Gorde et al., 2004; Nathanson et al., 2012). PTSD symptoms severity has also been found to be associated with IPV victimisation intensity (Scott, 2007). The fear and feelings of hopelessness created within an IPV environment leaving a victim to live in fearful anticipation of when the next violent act from their abusive partner is one of the most salient predictors of subsequent PTSD (Lagdon et al., 2014; Wilson et al., 2011). Victims of IPV who experience symptoms of PTSD are typically found to be experiencing other forms of mental health issues such as depression or psychological distress (Pill et al., 2017). The

evidence is clear that the trauma symptoms experienced by IPV victims will remain with them long after separation from an abusive partner (Woods, 2000).

1.5.3 Depression

Depression is also one of the most salient mental health problems associated with IPV victimisation, occurring been two-to-five times more frequently in women with IPV experience than those without (Beydoun et al., 2012; Chandan et al., 2020; Golding, 1999; Mechanic et al., 2008; Watson & Bitsika, 2025). Reports find that depression has been diagnosed in between 35% and 70% of female victims of IPV compared to rates of only 12% on average in women in the general population (Nathanson et al., 2012). All forms of IPV experience, physical, sexual or psychological, have been associated with an increased risk of depressive symptoms for both men and women (Lagdon et al., 2014; Coker et al., 2002), with biological and psychological stress pathways being suggested as possible causal links between IPV and depression (Watson & Bitsika, 2025). Symptoms of depression, along with other subsequent mental health problems associated with IPV, may act to prevent victims from seeking help, with depressive symptoms potentially increasing their feelings of hopelessness, making it difficult for them to see an alternative to their abusive relationship (Brush, 2000; Hobfoll et al., 2003; Nathanson et al., 2012). This further highlights the imperative need to screen for and address depressive symptoms in victims or suspected victims of IPV (Watson & Bitsika, 2025). However, a bidirectional relationship has been proposed between IPV and depression with depression being shown to act as a risk factor for IPV victimisation in some cases as well as a consequence of victimisation (Chandan et al., 2020).

1.5.4 Alcohol/Substance abuse

A strong association has been established between IPV and alcohol or drug misuse (Cafferky et al., 2018; La Flair et al., 2012; Nathanson et al., 2012). Lipsky and colleagues found in 2005 that 13.5% of IPV victims were dependent on alcohol and 22.8% has used illicit drugs within the last year, compared to only 1.4% and 2.8% of non-victims respectively (Lipsky et al., 2005). Victims of IPV may engage in alcohol or substance misuse as a means of self-medicating in order to cope with their depression, PTSD or other trauma related symptoms linked to their IPV experiences (Fowler, 2008; Testa & Leonard, 2001). It has been suggested that victims may also engage in these activities as a means to forget the memories associated with their abuse. However, this relationship appears to be bi-directional with alcohol and drugs abuse also being a risk factor for both experiencing IPV victimisation and perpetrating IPV (Devries et al., 2014).

1.5.5 Effect of IPV type

A large proportion of the existing research investigating the consequences of IPV focus almost exclusively on physical or sexual abuse. However, recent studies have begun to investigate the effect of psychological abuse, both in conjunction with other forms of abuse, and exclusively, and findings suggest the psychological abuse is just as, if not more detrimental, to a victim's mental health than physical or sexual victimisation (Lagdon et al., 2014; Nathanson et al., 2012).

Lagdon and colleagues' (2014) systematic review argues that psychological violence should be considered as a much more serious form of IPV. This study found that psychological IPV can maintain an abusive relationship (Sackett & Saunders, 1999) and can have one of the strongest associations with disorders such as PTSD and depression by creating feelings of fear and self-doubt in a victim, eating away at their sense of self and

identity, leading to an intense sense of hopelessness (Lagdon et al., 2014). On the other hand, White et al.,’s (2024) systematic and meta-analytic review found that sexual IPV, particularly when experienced within the past year, was associated with the highest risk of psychological distress among women (White et al., 2024). Although, it was noted that emotional responses, and thus subsequent emotional consequences, to sexual IPV were intrinsically related to their belief and level of awareness around what would be considered as sexual abuse (Tarzia, 2021; White et al., 2024). A woman must first realise that she has been sexual abused in order to measure the subsequent consequences, and studies have shown that some women struggle to identify and name sexual IPV when it does not involve physical violence or coercion. This is often due to their feelings towards the perpetrator as well perceptions of what is normal behaviour within a relationship, often influenced by patriarchal norms and attitudes within their wider community. However, research has demonstrated women struggle with the effects of sexual IPV in all forms, physically violent or not (Tarzia, 2021).

Finally, there are those who suggest that physical abuse causes the most psychological damage, as well as physical damage, within an intimate relationship. Physical IPV experience has been linked to having an eight-fold increased risk of developing mood disorders, most commonly depression, compared to those without IPV experiences (Okuda et al., 2011; Delara, 2016). Physical IPV victims have been found to be at an increased risk of suicide, often attributed to feelings of helplessness experienced due to their perceived lack of control of their relationship (Wingood et al., 2000; Delara, 2016). In some cases, victims may believe that their abusive partner may kill them eventually and thus decide to do it themselves instead (Devries & Seguin, 2013). However, it is extremely difficult to truly ascertain the individual effects and consequences of each form of IPV on an individual’s psychological well-being as it is very rare for one to experience just one form of abuse within a relationship where there is abuse present (Sabrina & Straus, 2008; Lagdon et al., 2014). Polyvictimisation, or the

combinations of the different forms of IPV, is much more common in IPV victimisation than any one single form of abuse. What is known, however, is that all forms of IPV are strongly linked to poor mental health outcomes, making designing interventions for IPV a top priority.

1.6 Measurement of IPV

With evolving and differing definitions of IPV, the importance of measurement cannot be understated. Without a consistent method to measure IPV across different contexts, it is impossible to obtain consistent estimates of the prevalence of IPV. Additionally, harmonisation of other types of research such as identification of risk factors and determination of mental and physical health consequences is made extremely difficult. Ultimately, to develop a universally accepted method of assessing IPV, a universally accepted definition of IPV is required. This is challenging.

A large number of multi-item scales have been developed over the years to measure experiences of IPV such as the Conflict Tactics Scale (CTS; Straus, 1979), its derivative the revised CTS (CTS2; Straus et al., 1996), the Composite Abuse Scale (CAS; Hegarty et al., 1999), and the Abuse Risk Inventory (ARI; Yegidis, 1989) for example. The majority of these measures primarily capture physical violence, such as those found in situational couple violence, or only identify acts of violence that occur at specific points in time or within a defined period of time, such as within the past year. This limits the ability to analyse the trajectories of violence over time, the severity of the levels of abuse and the different effects different types of abuse, and the role fear and intimidation, can play on a victim of IPV and their mental and physical health (Kelly & Johnson, 2008; Scott-Storey et al., 2023). Thus leading to a potential inadequate understanding of the true nature and prevalence of IPV experiences among men and women (Scott-Storey et al., 2023).

However, newer measures such as the Composite Abuse Scale Revised Short Form (CASR-SF) (Ford-Gilboe et al., 2016) have shown promise in understanding the different patterns of both male and female IPV experiences within various contexts (Scott-Storey et al., 2023). This measure was derived from the CAS (Hegarty et al., 1999), a 30-item comprehensive and reliable self-report measure of IPV. The CAS has been viewed as the criterion standard for assessing women's self-reported experiences of physical, sexual and psychological abuse. However, the CAS was not without its issues, for example asking participants to answer only in relation to acts that have happened in the last 12 months, potentially leading to under-reporting of IPV rates, being too long to include in population studies, its development being geared towards capturing female experiences only, and the fact that the language used at times could lead to a social class bias (Ford-Gilboe et al., 2016). For these reasons Ford-Gilboe et al., developed the CASR-SF.

Using a mixed-methods approach, they took the key and essential elements from the CAS and added in new items to address critical gaps in the original measure. When creating the CASR-SF, Ford-Gilboe et al. took time to ensure that all the measures were up to date with the current context and way of thinking in the field, and made sure that the language was more inclusive, testing their measure on a diverse sample of Canadian women (Ford-Gilboe et al., 2016). Furthermore, unlike the CAS, the CASR-SF measures lifetime experiences of IPV, not just those that have occurred within the last 12 months. This resulted in a reliable, valid and comprehensive 15-item self-report measure capturing three different forms of lifetime IPV; physical, sexual and psychological abuse; with a further focus on measuring severity and intensity of experiences.

It begins by asking four screening questions; if the respondent has ever been in an adult intimate relationship, since the age of 16, if they are currently in a relationship, if they are currently afraid of their partner and if they have ever been afraid of any partner, all of

which are answered on a “yes” or “no” basis. This is then followed by the fifteen items used to measure lifetime experiences of physical (7 items), psychological (6 items) and sexual (2 items) abuse. These are all answered on a six-point Likert scale ranging from “No, this never happened to me” to “Yes, daily or almost daily” in order to measure the frequency of the abuse (Ford-Gilboe et al., 2016). The full scale can be found in the appendix A.

1.6.1 Can we measure mental health the same way? Measurement invariance

Once it is established that IPV can be measured with acceptable reliability and validity, it is then reasonable to wonder whether we can reliably investigate the association between these IPV experiences and negative health outcomes. Many studies have linked IPV experience to negative mental health outcomes (Beydoun et al., 2012; Chandan et al., 2020; Coker et al., 2002; Golding, 1999; Lagdon et al., 2014; Mechanic et al., 2008 & Nathanson et al., 2012; Okuda et al., 2011), however in order to make group comparisons such as those between those with IPV experience and those without, there must be an assumption of measurement invariance. Confirmation of a stable relationship between the raw items scores and the latent constructs are needed in order for group comparisons to be reliable, valid and meaningfully interpreted (Hirschfeld & Von Brachel, 2014; O’Hara et al., 2018). Thus, it is important to establish measurement invariance before interpreting any results of group comparisons between those with and without IPV. This is done using measurement invariance testing.

The most common way to conduct measurement invariance testing is through structural equation modelling (SEM) via confirmatory factor analysis (CFA) (Putnick & Bornstein, 2016). Measure invariance analysis involves testing three nested models: a configural model, a metric model and a scalar model. The configural model tests the invariance of model form, meaning it tests whether the constructs have the same patterns of

free and fixed loadings across the groups. There are no constraints applied in the configural model. Invariance at the configural level implies that the constructs organisation is supported in the two groups (Putnick & Bornstein, 2016). If configural invariance is established, metric invariance can be assessed. Metric invariance is established if each item contributes to the latent construct in the same way across groups. In order to test for this, factor loadings are constrained to be equal across both groups. This model is then compared to the configural model where factor loadings are freely estimated in each group. If the metric invariance model fits the data as well as or better than the configural model, then metric invariance is established since the metric model is more parsimonious. If the model fit is significantly worse, this implies that at least one loading is not equivalent across both groups (Putnick & Bornstein, 2016). Assuming full or partial metric invariance is established, scalar invariance is subsequently assessed. This is done by also constraining the item thresholds/intercepts (depending on whether the items are categorical or continuous) to be equal across both groups. The fit of this model is compared to the metric model, and if the fit of the scalar model is not worse than the metric model then scalar invariance is established meaning that the groups have the same starting point on the scale items (Putnick & Bornstein, 2016). If scalar invariance is supported, then ‘strong’ measurement invariance has been established. Establishing metric invariance permits researchers to examine if the construct of interest (e.g., depression) is related to a criterion variable (e.g., suicidal attempts) in the same way across groups (e.g., those with and without a history of IPV). Establishing scalar invariance permits researchers to examine if there are group differences (e.g., those with and without a history of IPV) on the construct of interest (e.g., depression).

However, despite its importance, there is very little research investigating measurement invariance within IPV populations for negative health outcomes, especially in regards to the area of depression, which is one of the most commonly linked mental health

disorders to IPV. Of the research that does exist, most investigate measurement invariance across sexes for IPV, identification of IPV perpetration and reporting of IPV (Martín-Fernández & Lila, 2019; O'Hara et al., 2018; Wareham et al., 2021) or for measurement of IPV among sexual minority and non-sexual minority individuals (Palm Reed et al., 2022). Very few studies investigate the psychometric properties of mental disorders within an IPV sample and those that do usually have an extra caveat such as examining measurement invariance across those with or without brain injuries as a result of IPV (Karr et al., 2024). Additionally, most of the existing research typically only focuses on female victims and does not include male victims within their samples, further highlighting the need for more gender balanced research on the psychometrical properties of mental health problems within IPV samples.

1.7 Rationale for the current thesis

It is clear from the existing research that intimate partner violence is a serious public health issue which has complex associated risk factors and psychosocial consequences (WHO, 2021). While much is known about this topic as it relates to women, there is very little information out there examining the experiences of both male and female victims. Do men and women have similar IPV experiences in terms of prevalence, type and patterns of abuse, be it physical, sexual or psychological? Do the same factors affect men and women's likelihood of experiencing IPV and if so, do they do so in the same way? When both men and women are included in the same sample, do IPV measurements, such as the CASR-SF, produce as reliable and valid scores as they do in all female samples? What are the differences in the mental health outcomes of IPV victims across genders?

These are all important questions that we still do not fully know the answers to as IPV research is so heavily skewed towards the traditional feminist view of “pure victims and evil villains” in which women are the victims of male abusers (Loseke, 2001, p 107). And with

evidence suggesting that male victims are much less likely to seek out help or disclose the abuse they may experience out of fear of negative public perceptions, gender stigmatisation, feelings of embarrassment or feeling like they won't be believed (Bates et al., 2019; O'Connor, 2020; Scott-Storey et al., 2022), it is important to produce research which includes male experiences of IPV to promote more advocacy and reduce this stigma around male victims of IPV. This thesis aims to provide up-to-date information on the scope of the problem of IPV for both men and women in the hope of better informing intervention strategies and public policies in order to ensure all victims of IPV are able to receive the help they need to escape their abusive relationship.

1.8 Theoretical framework

This thesis is written using a trauma-informed, social ecological and gender aware framework. It recognises that IPV is not merely an individual dysfunction, nor an entirely gender specific issue, but rather that IPV is a complex phenomenon which can emerge through the interaction between relational and societal forces such as individual vulnerabilities, relationship dynamics, social learning and cultural context. This thesis integrates multiple frameworks to examine the scope of problem of IPV for both men and women.

Gender is a key focus of this thesis, hoping to bring light to all victims of IPV, regardless of gender. For this reason, it is important to discuss the gender symmetry debate in a little more detail as well as where this thesis falls within this debate. As previously mentioned, gender asymmetry, a central view within the feminist perspective of IPV, believes that IPV is a phenomenon which largely consists of men assaulting female partners (Cares et al., 2024; Johnson, 2006). The gender symmetry perspective on the other hand, states that men and women are equally likely to abuse their partner, a key viewpoint of family violence researchers (Cares et al., 2024).

This thesis, however, does not strictly fall in-line with either perspective. Rather this thesis takes a gender-aware, but not reductive approach. It is the goal of this thesis to provide a gender balanced, but not gender neutral, research on IPV, ensuring that the voices of both male and female victims of IPV are heard. This research seeks to highlight that both men and women are commonly victims of IPV and that both should receive the necessary attention and awareness. However, this thesis recognises that while both men and women may be victims of IPV, as well as perpetrators, the patterns, severity, and motivations behind the abuse they experience are not the same. For these reasons, men and women, and their experiences of IPV, will be examined separately throughout this thesis, in order to accurately capture their different experiences and highlight the different needs and intervention strategies for each. Thus, this thesis proposes neither a strict gender symmetry in IPV or asymmetry, believing neither that it is primarily female victim profile with almost exclusively male perpetration nor that it is an entirely equal experience for both men and women. This viewpoint is deemed necessary to achieve the goals of this research; to assess the gender differences in IPV experiences.

While many theoretical frameworks which seek to explain IPV behaviours have been discussed within this chapter, this thesis does not follow any one alone, as there is no one singular theoretical framework currently in existence which can explain all aspects of IPV victimisation. Thus, this thesis will be situated within an exploratory field, rather than being a confirmatory thesis, and this may indeed be one of its strengths. Most of the existing frameworks surrounding IPV seek to explain and understand why IPV occurs from the perspective of perpetration and all the nuances that come with it. However, when looking to investigate the gender differences in the prevalence, risk factors and psychosocial consequences of IPV victimisation, it is the belief of this thesis that it may be more conducive to approach these questions from an exploratory lens, integrating multiple relevant

frameworks, such as Johnson's typologies, attachment theories and Dutton's ecological model together to help understand IPV victimisation.

1.9 Aims of Thesis

The overarching goal of this thesis is to better understand the prevalence, gender differences, risk factors and psychosocial consequences of IPV in the general population. To achieve this goal, several research objectives will be investigated.

The first objective of the thesis is to investigate the scope of the problem of IPV within the general adult population of the Republic of Ireland. The previous most recent Irish estimates of IPV comes from almost two decades ago via a survey conducted by the National Office for the Prevention of Domestic, Sexual and Gender-based Violence in 2005 (Watson & Parsons. 2005). Thus, it is time to gather more up-to-date information. To achieve this objective, several research sub-objectives were formulated:

- 1a. To assess what proportion of the Irish adult population have experienced at least one form of IPV experience in their lifetime
- 1b. To investigate whether gender differences existed in exposure to (i) any form of IPV, (ii) specific forms of IPV, and (iii) the total number of different IPV experiences.
- 1c. To assess whether there are unique groups of men and women within this population who are characterised by their exposure to different types of abuse at different frequencies and severities (different profiles of abuse) and whether these profiles have any sociodemographic factors associated with membership to that particular profile groups.
- 1d. To examine whether men and women differ in their probability of reporting lifetime experiences of suicidal ideation, non-suicidal self-injurious behaviour (NSSI), and attempted suicide depending on their membership to different IPV experience profiles.

The second objective of this thesis is to examine if there are factors which play an important role in linking IPV experiences to negative mental health. For this, the role of

social contact and loneliness will be examined and IPV will be used measured using the composite abuse scale revised short form (CASR-SF) (Ford-Gilboe et al., 2016). A necessary first step in this process is to investigate if the CASR-SF generates reliable and valid scores in the sample of male and female IPV survivors. Following this, it will be examined if IPV is indirectly associated with internalizing distress via social contact and loneliness.

The third objective is to investigate the factors involved in victims' decisions to either stay with or leave their abuser. This was to be carried out on a representative sample of adults living in Ontario, Canada, and so two further objectives were developed to explore the prevalence and gender differences of IPV experiences in Ontario, as well as the risk factors associated with IPV experience for men and women separately.

Lastly, the fourth objective is to investigate whether depression can be measured equivalently for a mixed gendered sample of adults with and without IPV experience. This research will be carried out on a sample living in Ontario, Canada. In order to achieve this objective, the best fitting model of depression using the International Depression Questionnaire (IDQ) (Shevlin et al., 2022) would first need to be established before measurement invariance within the sample could be tested. Conditional to measurement invariance being established, a further objective will be investigated in which mean levels of depression as well as the proportions of those that meet diagnostic criteria for depression would be compared between those with and without IPV experience.

1.10 Methods Overview

This thesis will employ cross-sectional, quantitative data analysis using both primary and secondary data. Secondary data analysis will be used to address objectives one and two. This approach afforded a convenient and immediate opportunity to access a large, high-quality, and gender-balanced sample of the Irish adult population that was shown to be representative to the population, allowing greater confidence in the generalisability of the

results of this research to the Irish population. To address objectives three and four, data will be collected in Ontario, Canada. More information on these datasets can be found below.

1.10.1 Dataset information and access

Irish dataset

Chapters 2 and 3 will focus on the scope of the problem of IPV within an Irish adult population, utilising secondary data ($N = 1,098$) collected from Wave 4 of the Irish arm of the COVID-19 Psychological Research Consortium (C19PRC) study; a longitudinal, internet-based survey designed to assess the Irish population's social and psychological adjustment to the COVID-19 pandemic (Hyland et al., 2020). Participants at wave 4 included those that participated at the first assessment (40%, $n = 416$), and newly recruited participants selected to match the characteristics of those that were not recontacted. Although this was a longitudinal study, information on lifetime IPV was only gathered during this wave of data collection, thus this became a cross-sectional, secondary data analysis. These data were collected from December 2 to 22 2020, approximately nine months after the initial lockdown period in Ireland. This was a period where nearly all public health restriction had been lifted. The survey company Qualtrics was used to collect the data, and participants were recruited from actively managed, double-opt-in research panels through SMS, email, or in-app notifications. The non-probability-based sample was gathered using quota sampling methods to construct a sample that was representative of the population in terms of gender, age, and geographical distribution, as per the most recent Irish census data (Central Statistics Office of Ireland, 2020). This sample data has been shown to match known population parameters with respect to the quota variables and are highly representative of a range of other demographic variables (Spikol et al., 2021). The inclusion criteria for the study were that participants were aged 18 years or older, residing in Ireland, and capable of completing the survey in English.

Participants were remunerated by Qualtrics, and informed consent was obtained from all participants. Ethical approval was granted by the Social Research Ethics Committee at Maynooth University [SRESC-2020-2402202].

Prof. Philip Hyland played a central role in leading the Irish arm of the C19RC study, which afforded the opportunity to gather data relating to IPV within this study by inserting the CASR-SF into the C19RC study questionnaire at Wave 4 of the data collection, which could later be used for the purposes of this thesis. Once data collection was completed, access was then granted to this dataset by Prof. Hyland for use in this thesis.

Canadian dataset

For chapters 4 and 5, a new dataset would be needed. An opportunity arose to work alongside Prof. Philip Hyland, Dr Emma Nolan from McMaster University, Canada, and Prof. Mark Shevlin from Ulster University, Northern Ireland on a project based in Ontario, Canada. The project was titled “Trauma exposure and trauma-related mental health distress in Ontario Canada” and sought to examine; a) whether participants had ever experienced a traumatic life event and the mental health consequences of such an experience, b) how positive and negative experiences in the first 18 years of life can affect risk of having mental health problems after a traumatic life event, and c) what proportion of adults living in Ontario have experienced physical or psychological violence from an intimate partner and what things motivated people to leave an abusive relationship. For the purposes of this thesis, sections relating to demographic variables, mental health (namely via the IDQ) and questions relating to IPV were used.

When designing the section of the questionnaire dedicated to measuring IPV, the CASR-SF (Ford-Gilboe et al., 2016) was used to ensure continuity throughout the thesis. Existing literature surrounding the topic of factors which may play a role in a person’s

decision to either stay with or leave an abusive partner (such as Estrello & Loh, 2014; Evans & Feder, 2016; Heron et al., 2022; Stephens & Melton, 2017) were examined and used to compile a list of potential facilitating or hindering factors. These factors were then combined and phrased in a way within the questionnaire to assess which of these factors played a role in our sample's decisions to either stay with or leave their abusive partner. In addition to this, questions relating to relationship characteristics such as being married to a partner or years together were gathered to assess the role these would play in a person's decision to leave an abusive relationship.

Data were collected from a sample of adults ($N = 1,310$) living in Ontario, Canada. These data were collected by the research survey company *Qualtrics* who have access to multiple research panels of participants in the province of Ontario. Quota sampling methods were used to construct a sample that was representative of the Ontario population in relation to sex, age, and income distributions, as per contemporary population data available from Statistics Canada. Inclusion criteria were being aged 18 years or older, residing in Ontario, and being able to complete the survey in English. Data were collected from July 28th to October 23rd, 2023, and multiple attention checks and quality control procedures were implemented. Informed consent was obtained from all participants, and ethical approval was granted by the Social Research Ethics Committee at Maynooth University [reference number SRESC-2023-35396].

1.10.2 Measurement of IPV

The CASR-SF (Ford-Gilboe et al., 2016) has been selected for use for this research thesis due to its reliability and validity, as well as its ability to cover a wide array of lifetime IPV experiences. While the CASR-SF does also allow for the opportunity to measure fear of current partner along with whether the IPV experience had occurred within the last 12

months, it is the intention of this thesis to measure lifetime experience of IPV throughout its analysis rather than to divide analysis based on the timeframe of experience.

1.10.3 Data analysis

Within both the Irish and Canadian datasets, although the CASR-SF allows for the opportunity to measure fear of current partner as well as whether the IPV experience had occurred within the last 12 months, it is the intention of this thesis to measure lifetime experience of IPV throughout its analysis, rather than to divide analysis based on the timeframe of experience. In regard to statistical means chosen for analysis, latent class analysis (LCA), Confirmatory factor analysis (CFA), structural equation modelling (SEM) and measurement invariance analysis will be the key methods used.

Latent class analysis will be used within empirical chapter 1 to assess whether there are unique groups of men and women within this population who are characterised by their exposure to different types of abuse at different frequencies and severities (different profiles of abuse). This method of analysis has been shown to be reliable at identifying unobserved (latent) subgroups within a population based on their responses to categorical variables, as was the case in this study. This combined with its unsupervised clustering methods, grouping the data based on patterns found in the data, made it ideal to use for our analysis.

As in LCA class memberships are uncertain, it is not possible to simply assign participants to their most likely classes and compare them on external variables as this could potentially bias the estimates and inflate Type-1 errors by not accounting for the uncertainty of the classifications. Thus, to account for these, the most logical statistical analyses to use to assess the relationships between these classes and a host of predictors and outcome variables would be the R3step auxiliary command and the DCAT method (Asparouhov & Muthén, 2013).

Confirmatory factor analysis (CFA) will be used to assess the latent structure of the CASR-SF as well as that of the IDQ. As the aims of this thesis are to assess specific, theory driven models, CFA is deemed to be the most appropriate statistical method to use, being one of the gold standard methods for evaluating and directly comparing these forms of pre-defined models (Brown & Moore, 2012). CFA is deemed to be the most appropriate method to assess this as it will allow for a direct comparison of these specific theory driven models, allowing for a true evaluation of fit.

In order to assess the role social contact and loneliness play on linking IPV experiences to internalising distress, structural equational modelling (SEM) will be used. SEM will allow for the opportunity to explore the direct effects of IPV, social contact and loneliness on internalising distress while also determining if the associations between IPV and internalising distress are fully or partially mediated by social contact and/or loneliness.

Finally, SEM via CFA will be used to conduct the measurement invariance testing needed to assess if depression can be measured equivalently for those with and without IPV experiences. This method as set out by Putnick & Bornstein (2016), in which three nested models; a configural model, a metric model and a scalar model, is the most common and accurate method for testing for measurement invariance in psychological research and thus this is why it has been selected.

As this is a PhD by publication, chapters will be presented in chronological order of publication.

1.10.4 Data Management

This thesis will use quantitative data regarding primarily sociodemographic information, information relating to mental health, and IPV experiences. Two forms of data

collection will be utilised in this thesis. The first is secondary data collection via the use of the Irish arm of the C19PRC, and the second being data collection within Ontario, Canada.

The Irish data, gathered as part of the Irish arm of the C19PRC, and the Ontarian data, were collected by the survey research company Qualtrics. In each case, ethics approval was obtained by the Social Research Ethics Committee at Maynooth University, and in the case of the Ontarian data by the research ethics committee at McMaster University. Informed consent was obtained from all participants prior to conducting the survey for their data to be used, stored and shared for the purposes of research, including secondary data analysis. For the Irish data, anonymous codes were used to link data across waves and at no point did the researchers ever have access to personally identifying information. All data were stored, processed, and shared in accordance with GDPR legislation and best ethical practice for open science. Data were stored on a password protected computer on the university-approved, MU OneDrive system and only those on the research team could access the full dataset. Ultimately, a dataset with all potentially identifying information was shared on an open access platform for researchers across the world (i.e., the Open Science Framework).

Chapter 2

Gender Differences in Intimate Partner Violence: Risk Factors and Associations with Suicide

A paper based on this chapter has been published in *Psychological Trauma: Theory, Research, Practice, and Policy*

Joksimovic, N., Vallières, F., & Hyland, P. (2024) Gender differences in intimate partner violence: Risk factors and associations with suicide. *Psychological Trauma: Theory, Research, Practice and Policy* 16(3), 470–477. <https://doi.org/10.1037/tra0001457>

Statement of contributions

Natasha Joksimovic acted as lead for study conceptualisation, methodology, formal analysis and writing of this paper. Prof. Philip Hyland and Dr. Frédérique Vallières played a crucial role in data collection, having been a part of the original C19PRC and being able to grant access to the data. Both Prof. Hyland and Dr. Vallières acted as supervisors for this chapter, offering guidance and advice throughout as well as offering revisions and reviews during various stages of the writing process.

2.1 Abstract

Objective: This study sought to provide updated estimates of the occurrence of intimate partner violence (IPV) in the general adult population of Ireland, and to better understand gender-specific profiles of IPV, their risk factors, and their relationship with suicidality.

Method: Data ($N = 1,098$) from Wave 4 of the Irish arm of the COVID-19 Psychological Research Consortium (C19PRC) study was used.

Results: 32.1% of the sample experienced lifetime IPV, with IPV more common among females. Latent class analysis results showed that females had a more complex profile of IPV (4 classes) than males (3 classes). Risk factors for females included younger age, having children, lower income level, lower social support, and lower social contact, while risk factors for males were living in an urban environment, having children, and lower social support. All IPV exposure was found to be associated with significantly higher likelihood of experiencing multiple suicide related phenomena for males and females.

Conclusion: IPV is a major public social health issue affecting approximately 1-in-3 females and 1-in-4 males in Ireland and is strongly associated with suicide related phenomena.

Keywords: Intimate Partner Violence, Abuse, Prevalence, Risk Factors, Suicidality

2.2 Introduction

Intimate partner violence (IPV) involves “*any behaviour within an intimate relationship that causes physical, psychological or sexual harm*” including acts of “*physical aggression, sexual coercion, psychological abuse and controlling behaviours*” (World Health Organization [WHO], 2013). IPV can take the form of threats, intimidation, physical violence, sexual violence, and emotional abuse (Stein et al., 2022), and past experience of IPV is a strong predictor of future IPV victimization (Kuijpers et al., 2012). In addition, sociodemographic risk factors for IPV include younger age (Capaldi et al., 2012), ethnic/racial minority status (Rennison & Welchans, 2000), having children (Romans et al., 2007), lower educational achievement (Cunradi et al., 2002), unemployment and lower income (Capaldi et al., 2012), living in an urban environment (Rennison & Welchans, 2000), and low levels of social support or social contact (Wright, 2015). Arguably one of the most noted sociodemographic risk factors for IPV is gender.

A WHO (2021) report using data collected from 161 countries between 2000 and 2018 found that 30% of females had experienced physical and/or sexual violence from an intimate partner. IPV is also common among males. A review of data published between 2000 and 2010 found that 19% of males (vs. 23% of females) had experienced physical violence from an intimate partner (Desmarais et al., 2012). In the United States, data collected as part of the 2010–2012 National Intimate Partner and Sexual Violence Survey found that the average rate of experiencing any form of IPV was 37% for females and 31% for males (Willie & Kershaw, 2019). In Ireland, the most recent estimates of IPV come from a nearly two-decade-old telephone survey conducted by the National Office for the Prevention of Domestic, Sexual and Gender-based Violence (Watson & Parsons, 2005). Defining IPV as “*a pattern of physical, emotional or sexual behaviour between partners in an intimate relationship that causes, or risks causing, significant negative consequences for the person*

affected”, it was found that 29% of females and 26% of males had experienced at least one form of IPV in their lifetime.

Whereas some groups are defined by exposure to different *types* of IPV (e.g., physical and emotional abuse but not sexual abuse, or sexual and physical abuse but not emotional abuse), other groups share similar types of exposure (e.g., physical, sexual, and emotional abuse), but differ in terms of the *frequency* or *severity* of their exposures (e.g., low, medium, or high) (Podaná, 2021). Mixture-modelling techniques such as latent class analysis (LCA) offer a powerful tool to identify unique groups of people in a given population characterised by these qualitatively and quantitatively different profiles of IPV (e.g., Cascardi et al., 2018; Podaná, 2021). To date, however, most studies using LCA to identify specific patterns of IPV have been performed exclusively with female samples, with very few studies examining whether males and females differ in their profiles of IPV.

Carbone-López et al. (2006) analysed data from the National Violence Against Women Survey, a nationally representative probability sample of adults in the United States and found that while a higher proportion of males experienced no IPV compared to females (92% vs. 77%), males and females experienced similar types of IPV. They found four classes which they labelled “No IPV”, “Interpersonal conflict violence” (characterised by a low prevalence of any specific violent act), “Physical aggression” (characterised by patterns of violence but not involving use of force or acts of sustained activity such as sexual assault or stalking behaviours), and “Systematic abuse” (characterised by extensive, multifaceted violence). Notably, females were twice as likely to experience more severe forms of IPV.

Ansara and Hindin (2010) analysed data from the 2004 Canada General Social Survey and found several differences in profiles of IPV between females and males. As with Carbone-López et al. (2006), more males than females belonged to a “no violence” class (90% vs 85%). They identified six groups of IPV among females, and four among males. The

female groups included those who primarily experienced ‘Jealousy, verbal abuse’ (8%), ‘Physical aggression’ (3%), ‘Severe violence, control, verbal abuse’ (2%), ‘Physical aggression, control, verbal abuse’ (1%), and ‘Control, verbal abuse’ (1%). The male groups included those who primarily experienced ‘Jealousy, verbal abuse’ (5%), ‘Physical aggression’ (3%), and ‘Moderate violence, control, verbal abuse’ (2%). With the notable exception of these studies and given the high rates of lifetime IPV noted among the genders, the dearth of research exploring profiles of IPV within and between males and females represents an important gap in the literature.

Meta-analytic findings indicate that those who have experienced IPV are at an increased risk of suffering from a range of mental health problems including posttraumatic stress disorder, substance misuse, depression, and anxiety (Cafferky et al., 2018). Additionally, reviews of cross-sectional and longitudinal studies show that IPV is a significant risk factor for suicidal thoughts and behaviours (McLaughlin et al., 2012). In their review of the longitudinal literature, Devries et al. (2013) found that IPV predicted subsequent suicide attempts among female, but not male, survivors of IPV. Few studies have explored whether different forms of IPV are differentially related to suicidality. In a sample of college students from the United States, Wolford-Clevenger et al. (2016) found that physical abuse by a partner was associated with suicidal ideation among males, whereas emotional abuse by a partner was associated with suicidal ideation among females. These findings suggest that different patterns of IPV may be differently related to suicidality, and that these relationships may vary depending on gender.

The current study sought to provide updated estimates of the occurrence of IPV in the general adult population of Ireland, as well as to better understand gender-specific profiles of IPV, their risk factors, and their relationship with suicidality. Several study objectives were formulated. First, gender differences in exposure to (i) any form of IPV, (ii) specific forms of

IPV, and (iii) the total number of different IPV experiences were assessed. Based on the existing data, we hypothesised that females would be more likely than males to experience any form of IPV, more extreme forms of IPV such as sexual abuse and life-threatening violence, and to have experienced a higher number of IPV events. Second, we sought to determine the optimal number of IPV profiles for males and females, and the sociodemographic factors associated with membership of the different IPV groups. Based on the existing literature (Carbone-López et al., 2006; Ansara & Hindin, 2010), we hypothesised that there would be more males than females characterised by little-to-no IPV experience, and that females would have more varied IPV profiles than males. Third, we examined differences across the male and female IPV groups in their probability of reporting lifetime experiences of suicidal ideation, non-suicidal self-injurious behaviour (NSSI), and attempted suicide. It was hypothesised that all forms of IPV would be positively associated with suicidality (Devries et al., 2013; McLaughlin et al., 2012). Moreover, and based on Wolford-Clevenger et al.'s (2016) findings, it was expected that certain profiles of IPV would emerge as more strongly related to suicidality than others, and that these associations would be different for males and females.

2.3 Methods

2.3.1 Participants and Procedure

This study utilised data ($N = 1,098$) from Wave 4 of the Irish arm of the COVID-19 Psychological Research Consortium (C19PRC) study; a longitudinal, internet-based survey designed to assess the Irish population's social and psychological adjustment to the COVID-19 pandemic (Hyland et al., 2020). Participants at wave 4 included those that participated at the first assessment (40%, $n = 416$), and newly recruited participants selected to match the characteristics of those that were not recontacted. Information on lifetime IPV was only gathered during this wave of data collection. These data were collected from December 2 to

22 2020, approximately nine months after the initial lockdown period in Ireland. This was a period where nearly all public health restriction had been lifted. The survey company Qualtrics was used to collect the data, and participants were recruited from actively managed, double-opt-in research panels through SMS, email, or in-app notifications. The non-probability-based sample was gathered using quota sampling methods to construct a sample that was representative of the population in terms of gender, age, and geographical distribution, as per the most recent Irish census data (Central Statistics Office of Ireland, 2020). This sample data has been shown to match known population parameters with respect to the quota variables and are highly representative of a range of other demographic variables (Spikol et al., 2021). The inclusion criteria for the study were that participants were aged 18 years or older, residing in Ireland, and capable of completing the survey in English. Participants were remunerated by Qualtrics, and informed consent was obtained from all participants. Ethical approval was granted by the Social Research Ethics Committee at Maynooth University [SRESC-2020-2402202]. Sociodemographic details of the sample are presented in Table 2.1.

Table 2.1

Sociodemographic characteristics of the sample (N = 1,092)

	N	%
Gender		
Male	533	48.8%
Female	559	51.2%
Age		
18-24	118	10.8%
25-34	208	29.9%
35-44	231	51.0%

45-54	174	15.9%
55-64	218	20.0%
65+	143	13.1%
Ethnicity		
Irish	826	75.6%
Non-Irish	266	24.4%
Urbanicity		
Rural, suburb, town	780	71.4%
City	312	28.6%
Education		
No post-secondary education	306	28.0%
Post-secondary education	786	72.0%
Religion		
Atheist or Agnostic	236	21.6%
Theist	770	70.6%
Other	86	7.9%
Relationship status		
In a committed relationship	188	17.2%
Married	548	50.2%
Single	261	23.9%
Separated/divorced	74	6.8%
Widowed	21	1.9%
Living alone		
No	920	84.2%
Yes	172	15.8%

Do you have children?		
No	430	39.4%
Yes	662	60.6%
Employment status		
Currently unemployed	286	26.2%
Currently employed	806	73.8%
Income level		
€0 – 20,000	367	33.6%
€20,000 – 29,999	211	19.3%
€30,000 – 39,999	216	19.8%
€40,000 – 49,999	133	12.2%
€50,000 or more	165	15.1%

2.3.2 Measures

Gender: Participants were asked “What is your gender?” and provided with five response options including male (48.5%, $n = 553$), female (50.9%, $n = 559$), transgender (0.4%, $n = 4$), and prefer not to say or other (0.2%, $n = 2$). For analytic purposes, we created a binary variable including those identifying as male and female.

IPV: The Composite Abuse Scale (revised)-Short Form (CASR-SF: Ford-Gilboe et al., 2016) first asks whether respondents had ever, since the age of 16 years, been in an adult intimate relationship, if they are currently in a relationship, if they are currently afraid of their partner, and if they have ever been afraid of a partner. These questions are answered on a ‘Yes’ (1) or ‘No’ (0) basis. Fifteen items measure *lifetime* experience of physical (7 items), emotional (6 items), and sexual (2 items) abuse. A six-point Likert scale was used to record responses with the following options: 0 = ‘No, this never happened to me’, 1 = ‘Yes, once’, 2

= ‘Yes, a few times’, 3 = ‘Yes, monthly’, 4 = ‘Yes, weekly’, 5 = ‘Yes, daily or almost daily’.

All items were dichotomised to represent if each IPV experience ‘never happened’ (0) or ‘ever happened’ (1). Descriptions of the 15 events can be found in Table 1.

Suicidality: Three items were adapted from the English Adult Psychiatric Morbidity Survey (McManus et al., 2016) to measure suicidal and self-harm ideation (*‘There may be times in everyone's life when they become very miserable and depressed and may feel like taking drastic action because of these feelings. Have you ever thought of harming yourself or taking your life, even if you would not really do it?’*), NSSI (*‘Have you ever deliberately harmed yourself in any way but not with the intention of taking your own life?’*), and attempted suicide (*‘Have you ever made an attempt to take your own life?’*). Each of these questions were answered with on a ‘Yes’ (1) or ‘No’ (0) basis. Due to a failure to complete this key section of the survey, one further participant was excluded from the final analysis of this study.

Social Support: Social support was measured using the Modified Medical Outcome Social Support Survey (*mMOS-SSS*) (Moser et al., 2012). This is an eight-item abbreviated version of the 19-item MOS-SSS (Sherbourne & Stewart, 1991) which measures instrumental/tangible support and emotional support. Participants were asked to indicate how often each kind of support is available to them on a five-point Likert scale ranging from 0 (“None of the time”) to 4 (“All of the time”). Total scores range from 0-32, and the internal reliability of the scale scores in this sample was excellent ($\alpha = .95$).

Social Contact: Two items from the Midlife in the United States survey (Seeman et al. 2011) (*‘How often are you in contact with any members of your family, that is, any of your brothers, sisters, parents, or children who do not live with you, including visits, phone calls, letters, or emails?’* and *‘How often are you in contact with any of your friends,*

including visits, phone calls, letters, or emails?”) were used. These were measured using an eight-point Likert scale ranging from 0 (“Never or hardly ever”) to 7 (“Several times a day”). These two items were summed to create a total social contact variable.

2.3.3 Data analysis

Gender differences in exposure to any form of IPV and specific forms of IPV were assessed using a Pearson chi-square (χ^2) test, and odds ratios were estimated to quantify the magnitude of effects. The following values were used as guidelines: 1.50 (small effect), 2.00 (medium effect) and 3.00 (large effect) (Smit et al., 2018). Gender differences in the total number of IPV experiences was assessed using an independent samples t-test, and Cohen’s *d* values interpreted as ‘small’ (0.2), ‘medium’ (0.5) and ‘large’ (0.8) effects.

LCA was used to determine the optimal number of latent classes for males and females based on the 15 binary-coded items from the CASR-SF, and models with 1-6 classes were estimated using the robust maximum likelihood estimator (Yuan & Bentler, 2000). To avoid solutions based on local maxima, 500 random sets of starting values and 100 final stage optimisations were used. These analyses were conducted using Mplus version 8.2 (Muthén & Muthén, 2017). The relative fit of the models was assessed using the Akaike Information Criterion (AIC), the Bayesian Information Criterion (BIC), and the sample-size adjusted BIC (ssaBIC). The model with the lowest value is considered the best fitting, and the BIC is regarded as the best test for detecting the correct number of classes (Nylund et al., 2007). The Lo-Mendell-Rubin adjusted likelihood ratio test (LMR-A) (Lo et al., 2001) compares models with increasing numbers of classes, and a non-significant result indicates that the model with one less class is the preferred model. Entropy values determine how accurately individuals are classified into classes with values closer to one indicating better classification.

After selecting the best fitting LCA model for males and females, the classes were regressed on the following predictor variables: age, having children (0 = no, 1 = yes), urban

dwelling (0 = no, 1 = yes), education level (0 = No post-secondary education, 1 = Post-secondary education), employment status (0 = Unemployed, 1 = employed), Income level (0 = “Less than €20,000”, 1 = “€20,000 - €29,999”, 2 = “€30,000 - €39,999”, 3 = “€40,000 - €49,999” and 4 = “€50,000 or more”), social contact, and social support. These analyses were carried out using the R3step auxiliary command in Mplus (Asparouhov & Muthén, 2013). The DCAT method was used to compare the latent classes in terms of the proportion of people reporting suicidal ideation, NSSI, and attempted suicide. Wald χ^2 tests were computed for overall and pairwise comparisons. At the variable level, missing data were low with a range from 0.1-1.6%. The missing data were handled using maximum likelihood estimation.

2.4 Results

2.4.1 Gender differences in IPV exposures

In the full sample, 32.1% ($n = 352$) experienced at least one form of IPV, and the mean number of IPV experiences was 1.82 ($Mdn = 0.00$, $SD = 3.72$). Additionally, 30.1% ($n = 324$) reported lifetime suicidal ideation, 13.6% ($n = 148$) reported lifetime NSSI, and 10.5% ($n = 114$) reported lifetime attempted suicide.

There was a statistically significant difference in the proportion of females (38.1%) and males (26.5%) that experienced any form of IPV ($\chi^2(1) = 16.59$, $p < .001$, $OR = 1.70$ [95% $CI = 1.32, 2.21$]). Gender differences in rates of exposure to each form of IPV are presented in Table 2.2. Females were significantly more likely to have experienced seven types of IPV with ORs ranging from 1.51 (*‘Blamed me for causing their violent behaviour’*) to 2.18 (*‘Followed me or hung around outside my home or work’*). Females ($M = 2.10$, $SD = 3.72$) also experienced a significantly higher mean number of IPV events than males ($M = 1.52$, $SD = 3.69$), $t(1084) = 2.61$, $p = .009$, $d = .16$.

Table 2.2*Sex differences on each form of intimate partner violence.*

	Overall		Females		Males		χ^2	OR [95% CI]
	n	%	n	%	n	%		
1. Blamed me for causing their violent behaviour	201	18.3	119	21.3	81	15.2	6.69**	1.51 [1.10–2.06]
2. Shook, pushed, grabbed or threw me.	219	19.9	143	25.6	75	14.1	22.48***	2.10 [1.54–2.85]
3. Tried to convince my family, children, or friends that I am crazy or tried to turn them against me.	153	13.9	86	15.4	66	12.4	2.02	1.28 [0.91–1.81]
4. Used or threatened to use a knife or gun or other weapon to harm me.	78	7.1	36	6.5	41	7.7	0.64	0.83 [.52–1.32]
5. Made me perform sex acts that I did not want to perform.	117	10.7	74	13.3	41	7.7	8.9**	1.83 [1.23–2.74]
6. Followed me or hung around outside my home or work.	125	11.4	84	15.1	40	7.5	15.34***	2.18 [1.47–3.24]
7. Threatened to harm or kill me or someone close to me.	89	8.1	49	8.8	39	7.3	.76	1.21 [.78–1.88]
8. Choked me.	95	8.7	54	9.7	40	7.5	1.59	1.32 [.86–2.02]
9. Forced or tried to force me to have sex.	116	10.6	72	12.9	42	7.9	7.35**	1.73 [1.16–2.59]
10. Harassed me by phone, text, email, or using social media.	151	13.8	90	16.1	60	11.3	5.34*	1.51 [1.06–2.14]
11. Told me I was crazy, stupid, or not good enough.	243	22.2	147	26.3	95	17.9	11.25***	1.64 [1.23–2.20]

	Overall		Females		Males		χ^2	OR [95% CI]
	n	%	n	%	n	%		
12. Hit me with a fist or object, kicked or bit me.	133	12.2	69	12.4	63	11.9	0.07	1.05 [.73-1.51]
13. Kept me from seeing or talking to my family or friends.	119	10.9	68	12.2	50	9.4	2.16	1.34 [.91-1.96]
14. Confined or locked me in a room or other space.	69	6.3	35	6.3	33	6.2	.00	1.01 [.62-1.65]
15. Kept me from having access to a job, money, or financial resources.	94	8.6	50	9.0	43	8.1	.26	1.12 [.73-1.71]

Note: χ^2 = chi-square test; OR [95% CI] = odds ratio with 95% confidence intervals; statistical significance = * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$.

2.4.2 LCA results: Females

The model fit statistics for females are presented in Table 2.3. The LMR-A results were inconclusive however the four-class model had the lowest BIC value and was thus selected as the optimal solution. The entropy value of 0.94 indicated good classification. Class 1 (16.5%, $n = 92$) was characterised by moderate probabilities of experiencing several IPV events including ‘*being blamed for your partners violent behaviour*’, ‘*being shook, pushed, grabbed or thrown*’, and ‘*being told you were crazy or stupid by your partner*’. This class was labelled ‘High IPV without overt violence’. Class 2 (69.4%, $n = 388$) was characterised by a low probability of experiencing all IPV items and was labelled ‘Low IPV’. Class 3 (4.3%, $n = 24$), was characterised by a high probability of experiencing all IPV items and was labelled ‘Systematic Abuse’. Class 4 (9.8%, $n = 55$) was characterised by high probabilities of ‘*being shook, pushed, grabbed or thrown*’, ‘*being hit*’, ‘*being blamed by the*

abuser for their violent behaviour', and *'being told you were crazy or stupid by your abuser'*.

Class 4 also differed markedly from Class 1 with respect to three variables reflecting extreme violence: *'threatened to harm or kill me or someone close to me'*, *'choked me'*, and *'hit me with a fist or object, kicked or bit me'*. This class was labelled 'High IPV'. A latent class profile plot (for females are presented in Figure 2.1).

Table 2.3

Latent class analysis fit statistics for females and males.

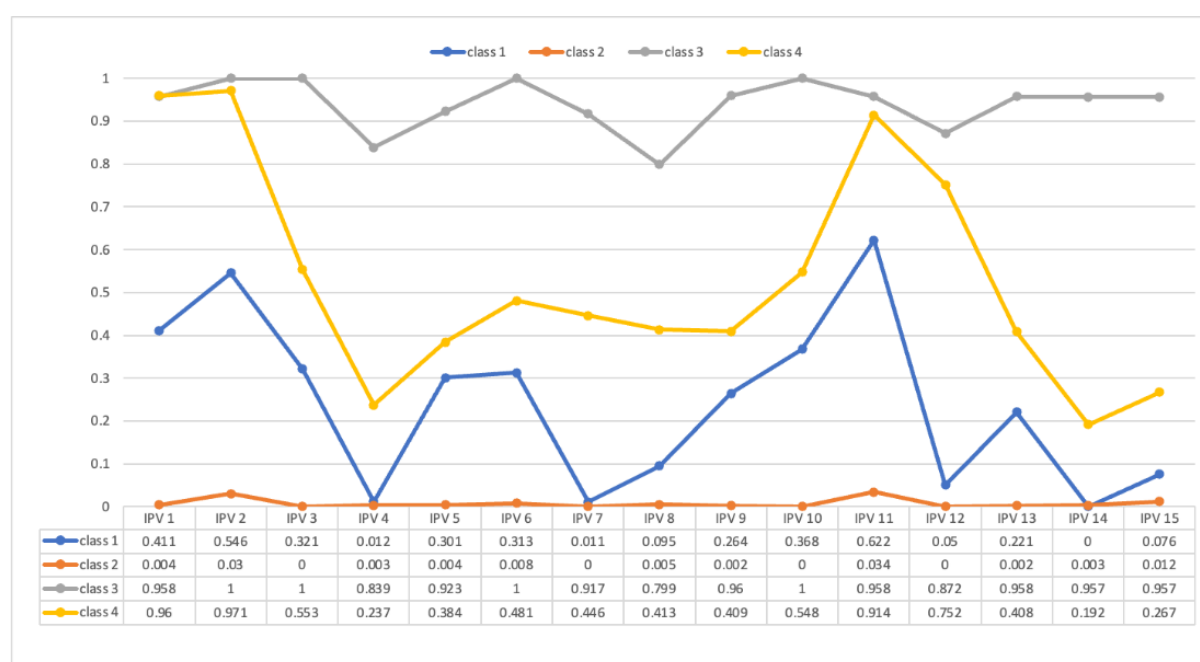
Classes	Log likelihood	AIC	BIC	ssaBIC	LMR-A (<i>p</i>)	Entropy
<i>Females (n = 559)</i>						
1	-3275.66	6581.32	6581.32	6598.59	—	—
2	-2092.42	4246.84	4380.95	4282.54	2343.33 (<.001)	0.96
3	-1914.87	3923.74	4127.07	3977.87	351.63 (0.34)	0.95
4	-1841.57	3809.14	4081.69	3881.69	145.17 (<.001)	0.94
5	-1812.14	3782.28	4124.04	3873.26	58.29 (0.107)	0.95
6	-1782.06	3754.11	4165.10	3863.52	59.58 (0.315)	0.96
<i>Males (n = 533)</i>						
1	-2570.41	5170.81	5234.96	5187.35	—	—
2	-1375.82	2813.65	2946.22	2847.82	2365.61 (<0.001)	0.99
3	-1113.08	2320.16	2521.17	2371.97	520.30 (<0.001)	0.97
4	-1082.85	2291.70	2561.12	2361.14	59.87 (0.30)	0.97

Classes	Log likelihood	AIC	BIC	ssaBIC	LMR-A (<i>p</i>)	Entropy
5	−1059.60	2277.21	2615.06	2364.29	46.03 (0.47)	0.97
6	−1043.73	2277.46	2683.75	2382.19	31.58 (1.00)	0.97

Note: AIC: Akaike Information Criterion, BIC: Bayesian Information Criterion (BIC), ssaBIC: sample-size adjusted BIC, (LMR-A): Lo-Mendell-Rubin adjusted likelihood ratio test. Best fitting model in bold.

Figure 2.1

Latent class profiles for female survivors of IPV



2.4.3 Correlates of class membership: Females

Compared to the Low IPV class (class 2), membership of the High IPV without overt violence class (class 1) was significantly associated with lower income levels (AOR = 0.80). Membership of the Systematic Abuse class (class 3) was significantly associated with having children (AOR = 4.28), lower social contact (AOR = 0.85), and lower social support (AOR = 0.94). Membership of the High IPV class (class 4) was significantly associated with younger age (AOR = 0.97), and lower social support (AOR = 0.95). See table 2.4 for full details.

Table 2.4*Correlates of class membership for female survivors of IPV.*

	B	SE	P	AOR (95% CI)
<i>Class 1: High IPV without overt violence</i>				
Age	-0.01	0.01	0.34	0.99 (0.97 / 1.01)
Ethnicity	-0.16	0.33	0.63	0.85 (0.45 / 1.63)
Urbanicity	-0.38	0.34	0.27	0.69 (0.35 / 1.33)
Education	0.25	0.30	0.41	1.29 (0.71/2.32)
Income	-0.23	0.11	0.04	0.80 (0.64/0.99)
Children	0.25	0.31	0.36	1.33 (0.73/2.43)
Employed	-0.25	0.29	0.39	0.78 (0.45/1.37)
Social contact	0.02	0.06	0.75	1.02 (0.91/1.14)
Social support	-0.01	0.02	0.50	0.99 (0.96/1.02)
<i>Class 3: Systematic Abuse</i>				
Age	-0.02	0.02	0.21	0.98 (0.95/1.01)
Ethnicity	-0.29	0.57	0.61	0.75 (0.24/2.30)
Urbanicity	-0.16	0.58	0.79	0.86 (0.27 / 2.69)
Education	-0.64	0.46	0.17	0.53 (0.21/1.31)
Income	-0.06	0.19	0.77	0.95 (0.65/1.38)
Children	1.45	0.61	0.02	4.28 (1.29/14.20)
Employed	0.36	0.48	0.45	1.43 (0.56/3.66)
Social contact	-0.16	0.08	0.05	0.85 (0.73/1.00)
Social support	-0.06	0.03	0.01	0.94 (0.90/0.99)

Class 4: High IPV

Age	-0.03	0.01	0.01	0.97 (0.95/0.99)
Ethnicity	-0.04	0.37	0.92	0.96 (0.47/1.99)
Urbanicity	-0.27	0.37	0.47	0.76 (0.37/1.58)
Education	0.29	0.37	0.42	1.34 (0.66/2.75)
Income	-0.18	0.15	0.23	0.84 (0.63/1.12)
Children	0.67	0.35	0.06	1.96 (0.98/3.92)
Employed	0.19	0.37	0.61	1.21 (0.59/2.49)
Social contact	-0.08	0.06	0.16	0.93 (0.83/1.03)
Social Support	-0.05	0.02	0.004	0.95 (0.91/0.98)

Note. B = unstandardized Beta value; SE = standard error for B; P = statistical significance, OR (95% CI) = odds ratio with 95% confidence interval; reference class is 'Low IPV'.

2.4.4 Class membership and suicidality: Females

The overall tests of class differences were significant for suicidal ideation ($\chi^2 (3, n = 550) = 45.11, p < .001$), NSSI ($\chi^2 (3, n = 557) = 31.57, p < .001$), and attempted suicide ($\chi^2 (3, n = 557) = 17.41, p < .001$). The pairwise comparisons are shown in Table 2.5, and all IPV groups had significantly higher rates of suicidal ideation, NSSI, and attempted suicide than the Low IPV class. The Systematic Abuse class had significantly higher probabilities of suicidal ideation and attempted suicide than all other groups. However, for NSSI, the High IPV class had the highest rates. See Figure 2.2 for comparisons.

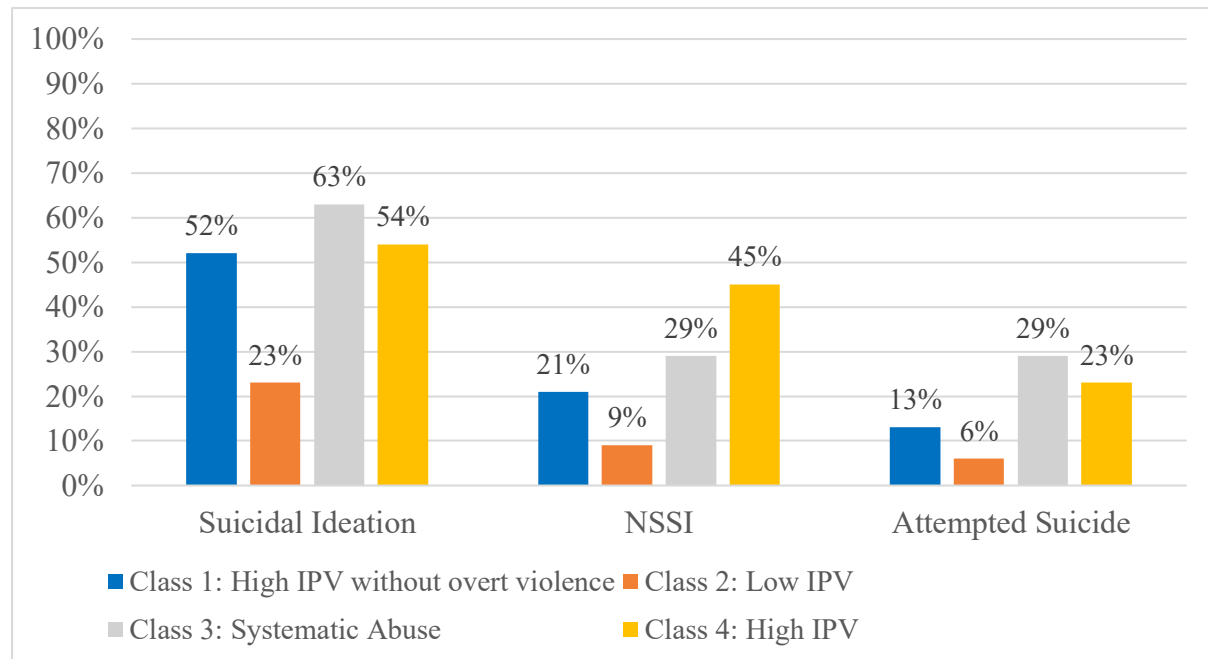
Table 2.5*Differences between the female classes on suicidality variables.*

		χ^2	P
Suicidal ideation			
Class 1: High IPV without overt violence	52% ²	45.11	<0.001
Class 2: Low IPV	23% ^{1,3,4}		
Class 3: Systematic Abuse	63% ²		
Class 4: High IPV	54% ²		
Non-suicidal self-injurious behaviour			
Class 1: High IPV without overt violence	21%	31.57	<0.001
Class 2: Low IPV	9% ⁴		
Class 3: Systematic Abuse	29%		
Class 4: High IPV	45% ²		
Attempted suicide			
Class 1: High IPV without overt violence	13%	17.41	0.001
Class 2: Low IPV	6% ⁴		
Class 3: Systematic Abuse	29%		
Class 4: High IPV	23% ²		

Note: Superscript numbers indicate significant differences between classes; χ^2 = Chi-square test

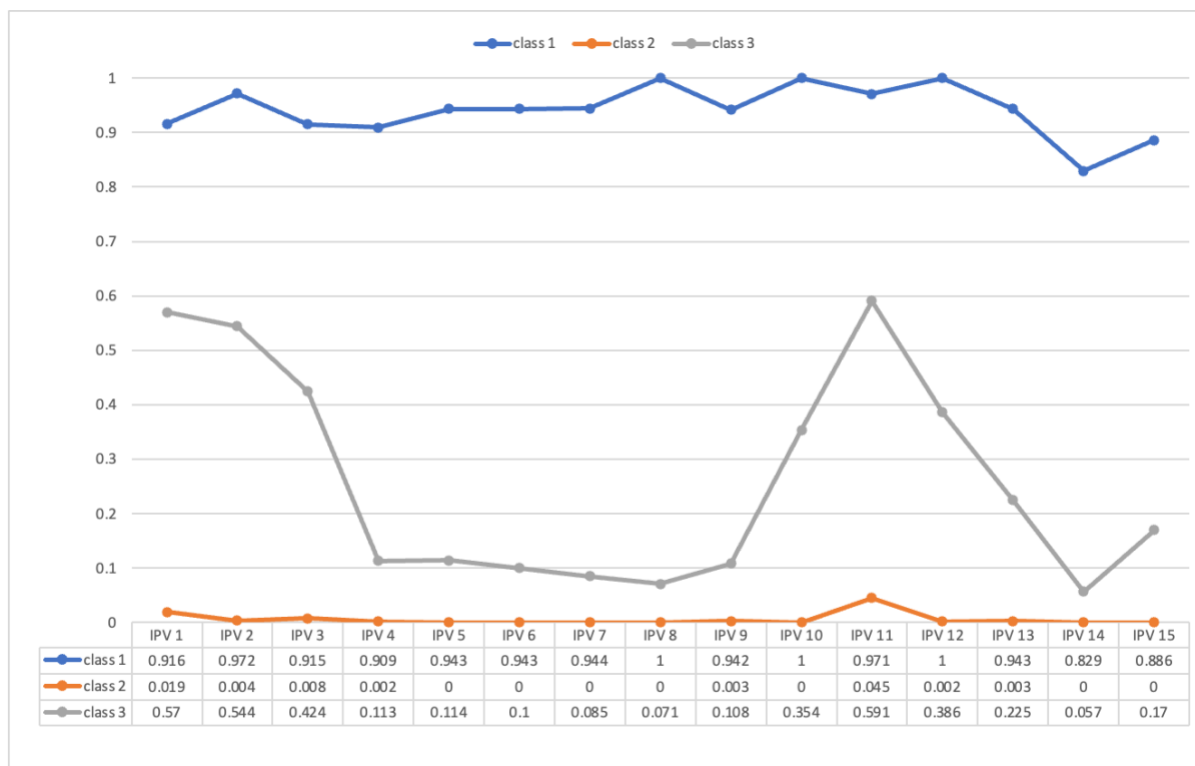
Figure 2.2

Differences between the female classes on suicidality variables



2.4.5 LCA results: Males

Model fit results are reported in Table 2. The three-class model was selected as the optimal solution based on the LMR-A and BIC values. The entropy value of 0.97 indicated good classification. Class 1 (6.6%, $n = 35$) was characterised by high probabilities of experiencing all IPV variables and was labelled “Systematic IPV”. Class 2 (80.1%, $n = 426$) was characterised by low probabilities of experiencing all IPV variables and was labelled as “Low IPV”. Class 3 (13.3%, $n = 71$) was characterised by moderate-to-high probabilities of experiencing events such as ‘*being blamed for your partners violent behaviour*’, ‘*being shook, pushed, grabbed or thrown*’, ‘*being told you were crazy or stupid by your partner*’, ‘*harassed by phone, text, email, or using social media*’, ‘*hit with a fist or object, kicked or bit*’, and ‘*prevented from seeing or talking to my family or friends*’. This class was labelled “Physical and psychological abuse” (see Figure 2.2 for a profile plot).

Figure 2.3*Latent class profiles for male survivors of IPV***2.4.6 Correlates of class membership: Men**

Compared to the Low IPV class (class 2), membership of the Systematic IPV class (class 1) was significantly associated with living in an urban environment (AOR = 3.01) and having children (AOR = 4.13). Membership of the Physical and psychological abuse class (class 3) was significantly associated with lower social support (AOR = 0.96). See table 2.6 for full details.

Table 2.6*Correlates of class membership for male survivors of IPV.*

	B	SE	P	OR (95% CI)
<i>Class 1: Systematic Abuse</i>				

Age	-0.09	0.02	0.00	0.91 (0.88 / 0.96)
Ethnicity	-1.02	0.58	0.08	0.36 (0.12 / 1.13)
Urbanicity	1.10	0.43	0.01	3.01 (1.29 / 7.01)
Education	1.04	0.67	0.12	2.84 (0.77/10.54)
Income	-0.002	0.15	0.99	1.00 (0.74/1.34)
Children	1.42	0.54	0.01	4.13 (1.43/11.92)
Employed	0.22	0.61	0.72	1.24 (0.37/4.13)
Social contact	0.03	0.09	0.75	1.03 (0.87/1.22)
Social support	0.02	0.02	0.30	1.02 (0.98/1.06)
<i>Class 3: Physical and psychological abuse</i>				
Age	0.01	0.01	0.19	1.01 (0.99 / 1.03)
Ethnicity	-0.30	0.35	0.39	0.74 (0.38 / 1.46)
Urbanicity	0.47	0.31	0.13	1.59 (0.87/2.92)
Education	0.18	0.32	0.56	1.20 (0.65/2.23)
Income	-0.12	0.10	0.20	0.89 (0.73/1.07)
Children	0.25	0.33	0.44	1.29 (0.67/2.46)
Employed	-0.33	0.35	0.35	0.72 (0.37/1.43)
Social contact	-0.02	0.05	0.62	0.98 (0.89/1.07)
Social Support	-0.05	0.02	0.006	0.96 (0.92/0.99)

Note. B = unstandardized Beta value; SE = standard error for B; P = statistical significance, OR (95% CI) = odds ratio with 95% confidence interval.

2.4.7 Class membership and suicidality: Males

The overall tests of class differences were significant for suicidal ideation ($\chi^2(2, n = 525) = 42.80, p < .001$), NSSI ($\chi^2(2, n = 531) = 61.41, p < .001$), and attempted suicide ($\chi^2(2, n = 531) = 41.45, p < .001$). The pairwise comparisons are shown in Table 2.7. The

Systematic IPV class had significantly higher probabilities of reporting suicidal ideation, NSSI, and attempted suicide than all other groups. The Physical and psychological abuse class also had significantly higher probabilities of all suicide variable than the Low IPV class. See Figure 2.4 for comparisons.

Table 2.7

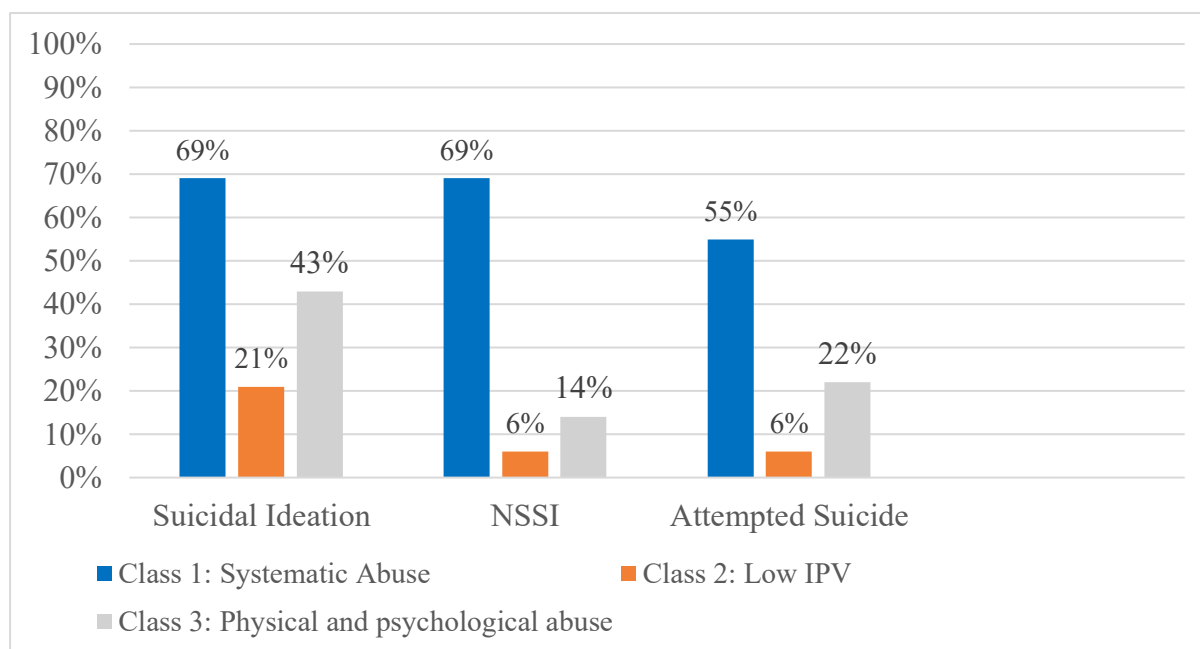
Differences between the male classes on suicidality variables.

		χ^2	P
Suicidal ideation			
Class 1: Systematic Abuse	69% ²	42.80	<0.001
Class 2: Low IPV	21% ^{1,3}		
Class 3: Physical and psychological abuse	43% ²		
Non-suicidal self-injurious behaviour			
Class 1: Systematic Abuse	69% ^{2,3}	61.41	<0.001
Class 2: Low IPV	6% ¹		
Class 3: Physical and psychological abuse	14% ¹		
Attempted suicide			
Class 1: Systematic Abuse	55% ^{2,3}	41.45	<0.001
Class 2: Low IPV	6% ^{1,3}		
Class 3: Physical and psychological abuse	22% ^{1,2}		

Note: Superscript numbers indicate significant differences between classes; χ^2 =Chi-square test

Figure 2.4

Differences between the male classes on suicidality variables.



2.5 Discussion

Almost one-third (32.1%) the sample experienced lifetime IPV, with more females (38.3%) than males (26.6%) exposed to such violence. Females also experienced a higher number of IPV events than males and were approximately twice as likely to encounter specific forms of IPV including physical violence, sexual violence, and stalking-related behaviours. These findings are broadly in-line with international data indicating that about one-in-three women, and one-in-four men experience lifetime IPV (Willie & Kershaw, 2019; WHO, 2021). Moreover, these findings indicate that experiences of IPV in Ireland, while high, are relatively less common for women than in other European Union nations (see European Union Agency for Fundamental Rights, 2020) where approximately one-quarter of males, and a little less than one-half of females report some form of IPV in their lifetime.

Our findings suggest that in the intervening two decades since the last assessment of IPV in Ireland, IPV among males has remained unchanged while IPV among women may have increased (i.e., from 29% to 38%). Several methodological differences between these

studies limits our ability to reliably determine any changes. The use of an anonymous online survey in the current study, versus the use of a telephone survey in the previous study, for example, may have contributed to our participants feeling more comfortable reporting experiences of IPV. Furthermore, cultural shifts in gender roles and changes to what is considered “acceptable” within intimate relationships over the past few decades, as well as an increased willingness to share or disclose experiences of IPV may have also played a role in the higher rate IPV reported by women in this study. That said, similar rates of IPV among males across the two studies may point to a real increase in IPV among females over time; a finding congruent with a noted growth in police-reported incidents of violent crime against women in Ireland (Central Statistics Office, 2022), and in the European Union (European Commission, 2018), over the last several years. It should be noted that there is evidence that IPV increased during the COVID-19 pandemic (Peitzmeier et al., 2022), and given that our data were collected during this period, it is possible that this was a contributing factor.

Consistent with previous research investigating profiles of IPV (Ansara & Hindin, 2010), we found more varied profiles of IPV for females than males. Each gender contained classes defined by a low risk of exposure to any form of IPV, and approximately 5% of males and females belonged to groups with high probabilities of experiencing all forms of IPV suggesting that one-in-twenty adults in Ireland have experienced systematic IPV. Notably, and in line with existing research (Ansara & Hindin, 2010; Carbone-López et al., 2006), substantially more males than females (80.1% vs 69.4%) belonged to classes defined by low no IPV. Consistent with Carbone-López et al. (2006), the more varied pattern of IPV for females found in Ireland was accounted for by females being more likely to experience more extreme forms of violence and abuse. Furthermore, no classes for males or females were defined exclusively by sexual violence. This suggests that while females in Ireland are more likely than males to experience all forms of sexual violence (Vallières et al., 2022), those who

experience sexual violence perpetrated by an intimate partner are likely to also experience other forms of IPV.

Membership of the 'High IPV' class was associated with younger age and having lower levels of social support. Younger age is a well-established risk factor for IPV for women (Capaldi et al., 2012), but was only associated with the 'High IPV' class in our study. This may be indicative of early onset patterns of IPV with IPV experiences being predictive of later IPV experiences (Kuijpers et al., 2012). Thus, younger age may only be associated with the 'High IPV' class as the members may, potentially, transition to the 'Systematic Abuse' class later in life. Longitudinal data will be required to answer this question. Membership to the 'Systematic Abuse' class was associated with having children, lower social support, and lower social contact. The small group of females that are exposed to multiple and varied forms of IPV are therefore more likely to be disconnected from people outside of their intimate relationship, and potentially less able to disconnect from their abuser due to the presence of children (Wright, 2015). Finally, membership of the 'High IPV without overt violence' class was associated with having a lower income; a finding that is consistent with existing literature (Capaldi et al., 2012).

For males, only living in an urban environment, having children, and lower social support were associated with belonging to the various IPV classes. Membership of the 'Systematic Abuse' group was associated with living in an urban environment and having children. Urban dwelling has previously been found to be a risk factor for IPV (Romans et al., 2007), and our findings suggest that this is particularly relevant for male victims of IPV. Membership of the 'Physical and psychological abuse' group was associated with lower social support. Thus, for both males and females, disconnection from supportive friends and family members is a risk factor for violence perpetrated by an intimate partner.

For males and females, membership of any IPV group was associated with a significantly higher likelihood of suicidal ideation, NSSI, and a suicide attempt. Across both genders, those belonging to the ‘Systematic Abuse’ classes had very high rates of suicidal ideation, NSSI, and attempted suicide. For example, 55% of men and 29% of women in the ‘Systematic Abuse’ classes had attempted suicide at some point in their lifetime. Such findings are consistent with previous research suggesting that greater exposure to IPV is associated with an increased risk of suicide related outcomes (Devries et al., 2013; McLaughlin et al., 2012), and serve to highlight the particularly high prevalence of suicide related phenomena among male victims of IPV. One other finding worth highlighting is that the highest rate of NSSI for women was in the class characterised by ‘High IPV’; 45% of women in this class had a history of NSSI compared to 29% of women in the ‘Systematic Abuse’ class. We could only speculate as to why NSSI is so high among this group of female IPV victims, but given this finding, routine screening for potential IPV among women who present with NSSI in care settings is advised.

Several limitations are worth noting. First, although IPV was assessed using an established self-report measure, the complicated nature of IPV means that it is unlikely that this measure fully captured the different ways that IPV can manifest. Second, these data were collected during the COVID-19 period which may have influenced the results. Low social support was found to be an important risk factor for IPV, and the enforced social distancing measures enacted during this period may have affected reports of social contact and social support (Pietrabissa & Simpson, 2020). Third, a relatively small number of potential risk factors for class membership was assessed and so it will be important to expand this line of research in future studies to consider other risk factors such as substance abuse or previous experiences of abuse. The cross-sectional nature of the data precludes any causal or predictive inferences to be drawn regarding the relationship between IPV and suicidality.

Finally, the non-probability nature of the sample means that these findings may not generalise to the entire adult population of Ireland.

In conclusion, our findings suggest that IPV is common in Ireland affecting approximately 1-in-3 females and 1-in-4 males and is strongly associated with multiple suicide related phenomena. IPV should therefore be considered a major public social health issue. This study provides vital information about the experiences of both male and female IPV victims. Highlighting the prevalence and impact of IPV among males is particularly important as it has been found that help-seeking behaviour among male IPV victims is low due to feelings of stigmatisation, embarrassment, and shame (Tsui et al., 2010).

Chapter 3

Examining the role of social contact and loneliness in linking intimate partner violence and internalizing distress

A paper based on this chapter has been published in Journal of Affective Disorders Reports

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Statement of contributions

Natasha Joksimovic acted as lead for study conceptualisation, methodology, formal analysis and writing of this paper. Prof. Philip Hyland and Dr. Frédérique Vallières played a crucial role in data collection, having been a part of the original C19PRC and being able to grant access to the data. Both Prof. Hyland and Dr. Vallières acted as supervisors for this chapter, offering guidance and advice throughout as well as offering revisions and reviews during various stages of the writing process.

3.1 Abstract

Low social support is a well-established risk factor for mental health problems among survivors of intimate partner violence (IPV). Social support includes elements of social contact and loneliness, and in this study, we examined the specific roles social contact and loneliness play in explaining the association between IPV and internalizing distress. We also assessed the psychometric properties of the Composite Abuse Scale Short Form (CASR-SF), a relatively new measure of IPV. Participants ($N = 353$) were male and female adults living in Ireland with a lifetime history of IPV. The psychometric properties of the CASR-SF were assessed using confirmatory factor analysis and composite reliability analysis. Structural equation modelling (SEM) was used to determine if social contact and loneliness fully or partial accounted for the association between IPV and internalizing distress. The CASR-SF was best explained by a single-factor model that fitted the data well, and had excellent internal reliability ($\omega = .97$). The SEM results indicated that there was a direct association between IPV and internalizing distress ($\beta = .32$), and this association was partially mediated by loneliness ($\beta = .06$) but not social contact. The CASR-SF operated well as a measure of IPV in this sample, and subjective assessments of the quality and quantity of social interactions (loneliness) was more important than the number of social interactions (social contact) in accounting for the association between IPV and internalizing distress. Reducing loneliness may therefore be an important clinical objective in helping survivors of IPV with mental health problems.

Keywords: Intimate partner violence (IPV); loneliness; social contact; depression; anxiety.

3.2 Introduction

According to the World Health Organization (WHO, 2013), intimate partner violence (IPV) encompasses any behaviour that causes physical, psychological, or sexual harm within an intimate relationship and includes acts of physical aggression, sexual coercion, psychological abuse, and controlling behaviours. Globally, prevalence rates of IPV victimisation ranges from 23-38% for women (Desmarais et al, 2012; Joksimovic et al., 2024) and 19-31% for men (Desmarais et al, 2012; Willie & Kershaw, 2019). IPV is also a major public health issue in Ireland, specifically, with recent data showing that approximately one-third of the adult population have experienced some form of IPV in their lifetime (32.1%), and, as with the wider literature, higher rates are evident among females (38.3%) than males (26.6%) (Joksimovic et al., 2024).

IPV is associated with a higher risk of many forms of psychological distress including depression, anxiety, and somatic problems (Sackett & Saunders, 1999; Mechanic et al., 2008; Coker et al., 2002; Haber, 1985; Gerber et al., 2007 & Iloson et al., 2021), and an estimated 23-60% of IPV victims report mental health problems (Okuda et al., 2011). Research exploring the mechanisms through which IPV is linked to subsequent mental health problems is important because targets for intervention can be identified (Costa & Gomes, 2018; Mengo et al., 2021). Much of this research has primarily focused on the role of social support, and have found that high levels of social support can act as a protective buffer between IPV experiences and subsequent mental health problems such as depression and anxiety, particularly at lower levels of abuse (Beeble et al., 2009; Carlson et al., 2002; Costa & Gomes, 2018; Lee et al., 2007).

Social support is generally defined as the actual or perceived availability of resources from other people (e.g., intimate partner, friends, family) during times of difficulty. Social support is sometimes discussed as being synonymous with the variable of loneliness which is

the painful subjective sense of not having sufficient social connections (Cacioppo & Patrick, 2008). A recent meta-analysis of 117 studies involving 113,472 people found that the correlation between social support and loneliness was just $r = -0.39$ (Zhang & Dong, 2022). Thus, social support and loneliness are quite distinct constructs, and it is possible for people to have a lot of contact with other people but still feel lonely; a concept known as ‘social asymmetry’ (McHugh et al., 2017).

Since the construct of social support captures elements of both social contact and loneliness, it is valuable to clearly delineate between social contact and loneliness when attempting to identify the key mechanisms linking IPV to mental health difficulties. This is because the two variables would require different types of intervention. Social contact can be addressed through interventions that involve bringing the individual into greater contact with other people (e.g., helping the isolated person (re)connect with friends, family, and other people) (Zagig et al., 2022). Loneliness however requires other types of interventions including cognitive-behavioural based therapies, animal therapy, and technological interventions (see Hoang et al., 2022 for a recent review of empirically supported interventions for loneliness). Some studies have found that low social contact is directly associated with mental health problems among survivors of IPV (Glowacz et al., 2022; Mojahed et al., 2021), and that loneliness mediates the association between IPV and mental health problems (Boyda et al., 2014), but no study has yet simultaneously examined the role of social contact *and* loneliness as potentially mediating the association between IPV and mental health problems. Thus, the primary goal of this study is to decompose the elements of social support – low social contact and high loneliness – to better understand how IPV is linked to mental health difficulties.

A prerequisite for such a study is the availability of a reliable and valid measure of IPV. A number of multi-item scales have been developed to measure experiences of IPV

including the Composite Abuse Scale (CAS; Hegarty et al., 1999), the Conflicts Tactics Scale (CTS; Straus, 1979) and its derivative the revised CTS (CTS2; Straus et al., 1996), and the Abuse Risk Inventory (ARI; Yegidis, 1989). More recently, the Composite Abuse Scale Revised Short Form (CASR-SF) (Ford-Gilboe et al., 2016) was developed to represent different forms of IPV (i.e., physical, sexual, and psychological). Initially tested using a sample of 6,278 Canadian women, Ford-Gilboe et al. used confirmatory factor analysis (CFA) and found that a three-factor model including dimensions of ‘physical’, ‘sexual’, and ‘psychological’ abuse provided reasonable model fit. However, because the three factors were very highly correlated, and all loaded strongly onto a single higher-order factor, the authors recommended a unidimensional scoring scheme. Several studies have since used the CASR-SF and have found it to produce scores with good internal reliability, with alpha scores ranging from .90 to .94 (Frazier, 2022; Rosebrock et al., 2020), but no other study has assessed the latent structure of the CASR-SF. Thus, there is a need for more research on the psychometric properties of this scale.

In this study, we first examined the psychometric properties of the CASR-SF among a sample of male and female IPV survivors from Ireland. We hypothesised that the latent structure of the CASR-SF would be well represented by a one-factor model (Ford-Gilboe et al., 2016), and scores would have high internal reliability (Frazier, 2022; Rosebrock et al., 2020). Next, we tested if IPV was indirectly associated with internalizing psychopathology (i.e., anxiety, depression, and somatic problems) via social contact and loneliness. Since no study has explored the indirect association between IPV and mental health problems via social contact and loneliness at the same time, we approached this objective in an exploratory manner.

3.3 Methods

3.3.1 Participants and procedure

This study uses data collected at Wave 4 (December 2nd - 22nd 2020) of the Irish arm of the COVID-19 Psychological Research Consortium (C19PRC) study; a longitudinal, internet-based survey designed to assess the Irish adult's social and psychological adjustment to the COVID-19 pandemic (Spikol et al., 2021). Information on IPV was collected only at Wave 4. Data were collected by the survey company Qualtrics during a period in which nearly all public health measures to limit the spread of COVID-19 had been temporarily lifted in Ireland. The full dataset included responses from 1,098 adults, where quota sampling methods were used to construct a sample that was representative of the general adult population with respect to sex, age, and regional differences (Spikol et al., 2021).

Only those participants who endorsed a lifetime experience of IPV ($n = 353$) were selected for analyses. Within this sample, 60.1% ($n = 212$) were female, the mean age was 43 years ($SD = 14.66$, range 18-81), 67.4% ($n = 238$) were born in Ireland, and 70.0% ($n = 247$) lived in a rural/suburb/town area. Additionally, 60.9% ($n = 215$) were married or in a relationship, 14.7% ($n = 52$) were divorced or separated, 23.2% ($n = 82$) were single, and 1.1% ($n = 4$) were widowed. The majority of the participants (64.9%, $n = 229$) had children, had a university education (74.5%, $n = 263$), and were employed (70.8%, $n = 250$). Household income ranged from under €20,000 to over €50,000, with most people reporting an income of less than €20,000 (36.8%, $n = 130$). Additional sociodemographic details of the sample are presented in table 3.1.

Table 3.1

Sociodemographic characteristics of the (used) sample ($N = 353$).

	N	%
--	---	---

Gender		
Man	141	39.9%
Woman	212	60.1%
Ethnicity		
Irish	260	73.7%
Non Irish ethnicity	93	26.3%
Born in Ireland		
Yes	238	67.4%
No	115	32.6%
Urbanicity		
Rural area/town/village	247	70.0%
City	106	30.0%
Education		
No Post secondary education	90	25.5%
Post secondary education	263	74.5%
Religion		
Theist	235	66.6%
Non theist	84	23.8%
Other	34	9.6%
Relationship status		
In a committed relationship	72	20.4%
Married	143	40.5%
Single	82	23.2%
Separated/divorced	52	14.7%
Widowed	4	1.1%

Do you have children?		
No	124	35.1%
Yes	229	64.9%
Employment status		
Currently unemployed (includes students/retired)	103	29.1%
Currently employed	250	70.8%
Annual Income (before taxation)		
Less than €20,000	130	36.8%
€20,000 – 29,999	75	21.2%
€30,000 – 39,999	70	19.8%
€40,000 – 49,999	42	11.9%
€50,000 or more	36	10.2%

3.3.2 Measures

Predictor variable

IPV: The CASR-SF (Ford-Gilboe et al., 2016) is a 15-item self-report questionnaire measuring lifetime exposure to different forms of IPV across three domains of physical (7 items), emotional (6 items), and sexual (2 items) abuse. Participants were provided with the following instruction, *‘We would like to know if you have ever experienced any of the actions listed below from any current or former partner or partners’*, and were asked to respond to each item on a six-point Likert scale with the following options: 0 = ‘No, this never happened to me’, 1 = ‘Yes, once’, 2 = ‘Yes, a few times’, 3 = ‘Yes, monthly’, 4 = ‘Yes, weekly’, 5 = ‘Yes, daily or almost daily’. All items were dichotomised to represent if each IPV experience ‘never happened’ (0) or ‘ever happened’ (1). Thus, scores ranged from 0-15, where higher scores reflect exposure to a broader range of IPV events.

Mediator variables

Social Contact: Two items were used to measure social contact and these were adapted from the Midlife in the United States survey (Seeman et al. 2011). These were: “How often are you in contact with any members of your family, that is, any of your brothers, sisters, parents, or children who do not live with you, including visits, phone calls, letters, or emails?” and “How often are you in contact with any of your friends, including visits, phone calls, letters, or emails?”. These were measured using an eight-point Likert scale, ranging from 0 (“Never or hardly ever”) to 7 (“Several times a day”). A total social contact variable was created with scores ranging from 0-14, where higher scores reflect higher social contact.

Loneliness: Loneliness was measured using the Three-Item Loneliness Scale (TILS: Hughes et al., 2004) which asks participants how often they feel ‘left out’, ‘isolated from others’, and ‘lack companionship’. Participants respond on a three-point Likert scale (1 = ‘Hardly ever’, 2 = ‘Some of the time’, 3 = ‘Often’), with scores ranging from 3 to 9 and higher scores reflecting higher levels of loneliness. The TILS has been shown to produce reliable and valid scores in general population samples (Trucharte et al., 2023), and the internal reliability of the scale scores was good in this sample ($\alpha = .81$).

Criterion Variables

Internalizing psychopathology was assessed by measuring symptoms of major depression, generalized anxiety, and somatic problems.

Major depression: The Patient Health Questionnaire-9 (PHQ-9) is a widely used measure of the nine symptoms of major depressive disorder (Kroenke, Spitzer & Williams, 2001). Participants are asked to indicate how often they have been bothered by each symptom over the past two weeks on a four-point Likert scale, ranging from 0 (‘Not at all’) to 3 (‘Nearly every day’). Possible scores range from 0 to 27, with higher scores indicating higher levels of depression. The psychometric properties of the PHQ-9 are well-supported (Shin et

al., 2020), and the internal reliability of the scale scores in this sample was excellent ($\alpha = .93$).

Generalized Anxiety: The Generalized Anxiety Disorder 7-item scale (GAD-7) (Spitzer et al., 2006) was used to measure symptoms of generalized anxiety. This scale asks participants how often they have been bothered by each symptom over the past two weeks using a four-point Likert scale (0 = 'Not at all' to 3 = 'Nearly every day'). Possible scores range from 0 to 27, with higher scores indicating higher levels of anxiety. The psychometric properties of the GAD-7 are well-supported (Hinz et al., 2017) and the reliability of the scale scores in this sample was excellent ($\alpha = .95$).

Somatic symptoms: The Patient Health Questionnaire-15 (PHQ-15: Kroenke et al., 2002) is a 15-item questionnaire asking participants how bothered they have been over the last two weeks by various physical health problems (e.g., back pain, stomach pain, nausea, fatigue). The response options are 'Not bothered at all' (0), 'Bothered a little' (1), and 'Bothered a lot' (2). One item assessing menstrual problems was excluded as it is gender-specific, leaving 14 items. Scores range from 0-28 with higher scores reflecting higher levels of somatic problems. The psychometric properties of the PHQ-15 are well supported (Cano-García et al., 2020), and the internal reliability of the scale scores in this sample was good ($\alpha = .87$).

3.3.4 Data analysis

The data analysis plan for this study involved two steps. First, the latent structure of the CASR-SF was assessed using CFA in Mplus 8.2 (Muthén & Muthén, 2017). The two models described by Ford-Gilboe et al. (2016) in their development study were tested. Model 1 was a unidimensional model where all 15 items loaded onto a single 'IPV' factor. Model 2 was a correlated three-factor model where seven items loaded onto a 'Physical abuse' factor, six items loaded onto an 'Psychological abuse' factor, and two items loaded onto a 'Sexual

abuse' factor. These models were estimated using the mean and variance-adjusted weighted least squares (WLSMV) estimator as it provides accurate parameter estimates, standard errors, and test-statistics for categorical indicators (Flora & Curran, 2004). Standard guidelines for determining model fit were followed (Hu & Bentler, 1999), where acceptable model fit is indicated by a non-significant chi-square (χ^2) value; Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) values $> .90$; and Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) values $< .08$. The models were compared using the DIFFTEST function in Mplus. Upon selection of the optimal fitting model, the internal reliability of the CASR-SF scores was estimated using composite reliability analysis (Raykov, 1997). Composite reliability analysis is superior to Cronbach's alpha as it does not assume tau-equivalence and is based on the CFA results. Composite reliability values range from 0-1, with higher scores reflecting higher internal reliability.

Second, structural equation modelling (SEM) was used to determine if the association between IPV and internalizing psychopathology was fully or partially mediated by social contact and loneliness. Two models were tested: Model 1 was a fully indirect model where the effect of IPV on internalizing psychopathology was entirely indirect through loneliness and social contact. In Model 2, a direct effect of IPV on internalizing psychopathology was added. In these models, IPV was modelled in accordance with the best-fitting model of the CASR-SF, as identified in step one; a latent variable for loneliness was modelled via the three items from the TILS; a latent variable for social contact was modelled via the two items taken from the Midlife in the United States survey; and a latent variable for internalizing psychopathology was modelled via total scores for depression (PHQ-9), generalized anxiety (GAD-7), and somatic problems (PHQ-15). The residual variances for the latent variables of social contact and loneliness were allowed to correlate, and covariates representing age, sex (0 = males, 1 = females), nationality (0 = born in Ireland, 1 = not born in Ireland), living in an

urban setting (0 = no, 1 = yes), education level (0 = no university education, 1 = university education), having children (0 = no, 1 = yes), and income (1 = less than €20,000, 2 = €20,000-€29,999, 3 = €30,000-€39,999, 4 = €40,000-€49,999, 5 = more than €50,000) were included in the model. The fit of the two SEM models, and the comparison between them, followed the same rules as outlined for the evaluation of the CFA models.

3.4 Results

3.4.1 Descriptive statistics

The mean number of IPV experiences was 5.62 (*Mdn* = 4.00, *SD* = 4.60, range 1-15). Social contact scores ranged from 0-14 with a mean of 9.15 (*Mdn* = 10.00, *SD* = 3.01), and loneliness scores had a mean of 5.87 (*Mdn* = 6.00, *SD* = 1.85, range 3-9). The mean depression score was 9.53 (*Mdn* = 8.00, *SD* = 7.56, range 0-27), generalized anxiety had a mean of 7.48 (*Mdn* = 6.00, *SD* = 6.35, range 0-21), and somatic problems had a mean score of 7.58 (*Mdn* = 6.00, *SD* = 5.69, range 0-26).

3.4.2 CFA and reliability results

The unidimensional model of the CASR-SF provided adequate fit to the sample data (χ^2 (90) = 340.80, $p < .001$; CFI = .962, TLI = .956, RMSEA = .089 (90% CI = .079, .099), SRMR = .083), as did the correlated three-factor model (χ^2 (87) = 217.23, $p < .001$; CFI = .981, TLI = .977, RMSEA = .065 (90% CI = .054, .076), SRMR = .067). The DIFFTEST was statistically significant (χ^2 (3) = 63.51, $p < .001$), indicating that the correlated three-factor model provided significantly better fit to the data than the one-factor model. However, the correlations between these factors were extremely high. The Physical and Psychological factors were correlated at $r = .98$, the Physical and Sexual factors were correlated at $r = .79$, and the Psychological and Sexual factors were correlated at $r = .74$. Such strong correlations raise doubts about the independence of these dimensions and could lead to multicollinearity

problems in structural based analyses (Tabachnick & Fidell, 2019). As such, we concluded that the unidimensional model was the more appropriate solution for the latent structure of the CASR-SF. The standardized factor loadings for the unidimensional model are presented in Table 3.2. All factor loadings were positive, statistically significant ($p < .001$), and strong. The composite reliability of the scores from the 15 items was .97.

Table 3.2

Standardized factor loadings (standard errors) and factor correlations for the unidimensional model of the CASR-SF (N = 353).

	IPV
1. Blamed me for causing their violent behaviour	.70 (.04)
2. Shook, pushed, grabbed or threw me.	.73 (.03)
3. Tried to convince my family, children, or friends that I am crazy or tried to turn them against me.	.73(.04)
4. Used or threatened to use a knife or gun or other weapon to harm me.	.89 (.03)
5. Made me perform sex acts that I did not want to perform.	.86 (.03)
6. Followed me or hung around outside my home or work.	.81 (.03)
7. Threatened to harm or kill me or someone close to me.	.93 (.02)
8. Choked me.	.86 (.03)
9. Forced or tried to force me to have sex.	.88 (.03)
10. Harassed me by phone, text, email, or using social media.	.80 (.03)
11. Told me I was crazy, stupid, or not good enough.	.52 (.05)
12. Hit me with a fist or object, kicked or bit me.	.84 (.03)
13. Kept me from seeing or talking to my family or friends.	.82 (.03)
14. Confined or locked me in a room or other space.	.96 (.03)

15. Kept me from having access to a job, money, or financial resources.	.84 (.04)
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Note. All effects are statistically significant ($p < .001$).

3.4.3 SEM Results

Model 1, the fully indirect model, provided adequate fit to the sample data ($\chi^2 (365) = 743.61, p < .001$; CFI = .950, TLI = .943, RMSEA = .054 (90% CI = .049, .060), SRMR = .099), as did Model 2, the direct and indirect model ($\chi^2 (364) = 720.38, p < .001$; CFI = .953, TLI = .947, RMSEA = .053 (90% CI = .047, .058), SRMR = .098). The DIFFTEST was statistically significant ($\chi^2 (1) = 35.72, p < .001$), indicating that the model with a direct effect from IPV to internalizing psychopathology (Model 2) was a significantly better fit to the data than the model without this direct effect (Model 1). This model explained 8.1% of variance in loneliness ($p = .007$), 21.0% of variance in social contact ($p = .001$), and 59.4% of variance in internalizing psychopathology ($p < .001$). The direct and indirect standardized regression coefficients are presented in Table 3.3.

Table 10

Direct and Indirect Standardized Regression Coefficients Derived from the SEM (N = 353).

	β	SE	p
<i>Direct associations</i>			
IPV → Loneliness	.12	.06	.045
IPV → Social Contact	-.08	.07	.253
IPV → Internalizing psychopathology	.32	.05	<.001
Loneliness → Internalizing psychopathology	.51	.04	<.001
Social Contact → Internalizing psychopathology	.06	.06	.305
<i>Indirect Associations</i>			

IPV → Loneliness → Internalizing psychopathology	.06	.03	.044
IPV → Social Contact → Internalizing psychopathology	-.01	.01	.464
R^2			
Internalizing psychopathology	.594	--	<.001
Loneliness	.081	--	.007
Social Contact	.210	--	.001

Note. β = standardized regression coefficient; SE = standard error; p = statistical significance; R^2 = % of variance explained; all effects listed in this table are adjusted for covariates of age, gender, nationality, urbanicity, education level, having children, and income level.

IPV positively and significantly predicted scores on loneliness ($\beta = .12$, $SE = 0.06$, $p = .045$) and internalizing psychopathology ($\beta = .32$, $SE = 0.05$, $p < .001$), but not social contact. Loneliness, but not social contact, positively and significantly predicted scores on internalizing psychopathology ($\beta = .51$, $SE = 0.04$, $p < .001$). IPV was significantly indirectly associated with internalizing psychopathology via loneliness ($\beta = .06$, $SE = 0.03$, $p = .044$), but not social contact.

Regarding the covariates in the model, higher social contact scores were associated with younger age ($\beta = -.25$, $p < .001$), living in a city ($\beta = .21$, $p = .003$) and having a university education ($\beta = .16$, $p = .015$); higher loneliness scores were associated with younger age ($\beta = -.25$, $p < .001$); and higher internalizing psychopathology scores were associated with younger age ($\beta = -.30$, $p < .001$), not having a university education ($\beta = -.18$, $p < .001$), and having children ($\beta = .16$, $p = .002$).

3.4 Discussion

In this study we set out to assess the psychometric properties of a relatively newly developed multi-item measure of IPV, and to determine if the association between IPV and internalizing psychopathology was partially or fully accounted for by levels of social contact

and/or loneliness. Key findings were that the CASR-SF was optimally represented by a unidimensional latent structure that produced scores with excellent internal reliability, and that the association between IPV and internalizing distress was partially accounted for by higher levels of loneliness, but not by social contact.

Prior to addressing the core objective of this study which was to test the extent to which social contact and loneliness explained the association between IPV and internalizing-based mental health problems, it was essential to determine if the CASR-SF, as a relatively newly developed measure of IPV, possessed satisfactory psychometric properties. As with the original development study by Ford-Gilboe et al. (2016), a three-factor model fit the data reasonably well, but it was difficult to argue that this was a viable solution to the latent structure of the scale items given the extremely high correlations between the factors. Consistent with the recommendation of Ford-Gilboe et al., we deemed the simpler one-factor model to be a more reasonable description of the latent structure of the scale items. What these findings generally reveal is that among victims of IPV, it is extremely difficult to find differences between physical, sexual, and psychological abuse, meaning that for most victims of IPV, these elements are likely to co-occur.

With the measurement of IPV resolved, we moved our attention to the role of social contact and loneliness in linking IPV to internalizing distress. The SEM results indicated - consistent with a considerable body of evidence (Sackett & Saunders, 1999; Mechanic et al., 2008; Coker et al., 2002; Haber, 1985; Gerber et al., 2007 & Iloson et al., 2021; WHO, 2013) - that there was a relatively robust direct effect from IPV to higher levels of internalizing psychopathology, controlling for a host of covariates. With respect to the two socio-interpersonal variables that were the focus of this study, our results indicated that loneliness (i.e., distressing subjective assessments of one's current social and interpersonal circumstances), but not social contact (i.e., the frequency of social and interpersonal

interactions social contact), was positively associated with IPV and internalizing psychopathology, and partially accounted for the association between these variables. Thus, we set out to decompose social support into its constituent elements of social contact and loneliness to better understand which component was most important in linking IPV and internalizing based mental health problems and we discovered that it was loneliness. These findings are in-line with the wider scientific literature which tends to find that it is loneliness rather than social isolation (or low social contact) that is the primary risk factor for a host of mental health problems (e.g. Cho et al., 2019; Fiordelli et al., 2020; Wan Mohd Azam et al., 2013).

This finding has implications for intervention efforts. Since it is higher levels of loneliness, not lower levels of social contact, that appears to matter most, interventions that are simply focused on increasing contact with other people in a person's life are likely to be of limited value. It is not to say that these efforts are not worthwhile, certainly they are for their own sake, and they may bring mental health benefits because social contact is related to loneliness to some extent, but specific interventions designed to address loneliness itself are likely to be of much greater value. Interventions which encourage some form of socialization or that target coping strategies, such as animal therapies, psychotherapy and multicomponent interventions may be best (Hoang et al., 2022).

The current study is not without its limitations. First, the context in which these data were collected is important to consider. Data were gathered during the COVID-19 pandemic, when reports of IPV and social isolation increased globally (Peitzmeier et al., 2022; Pietrabissa & Simpson, 2020). The data we analysed, however, were collected during a time when people were free to socialise and go about their lives as normal, with few public health restrictions in place. Moreover, we measured lifetime experiences to IPV and therefore had no way of discerning whether subjective loneliness preceded internalizing symptoms, or

indeed, experiences of IPV. The cross-sectional nature of the data means that we could not ascertain whether loneliness mediated the effect IPV on internalizing psychopathology, or whether, for example, internalizing psychopathology preceded the incidence(s) of IPV (Heinze et al., 2021). Future longitudinal work will be required to determine if any mediation effects exist. The sample size was relatively small and consisted of a sub-sample of people living in Ireland who had experienced IPV drawn from a larger, representative general population sample. While necessary for an assessment of the latent structure of the CASR-SF, future studies with larger samples would be advantageous. The extent to which these findings may generalize to other populations outside of Ireland is unknown. We also limited our focus on mental health problems to internalizing distress and had no measures of externalizing distress (e.g., anti-social behaviour, addiction problems) or psychosis (e.g., hallucinations, delusions, paranoia). Whether our findings of how loneliness and social contact explain associations between IPV and mental health problems generalize to these other mental health difficulties remains to be determined. Prior work, however, has suggested an indirect association between IPV and psychosis via loneliness (Boyda et al., 2015). Additionally, IPV was measured as lifetime exposure to different types of IPV, and not by frequency or severity of IPV, the latter of which may have a greater impact on mental health than prevalence alone (Dillon et al., 2013). Finally, sexual orientation was not measured in this study. Due to the fact that research suggests that the prevalence rates of IPV within LGBTQ+ relationships are comparable to or even higher than in heterosexual relationships (Langenderfer-Magruder et al., 2016; Whitfield et al., 2021), this information would have been beneficial to have included in our analysis as a covariate. Future studies should ensure to account for and measure sexual orientation in order to provide a more thorough investigation of the scope of the problem of IPV as well as crucial information on the IPV experiences of those within the LGBTQ+ community.

In conclusion, our findings indicate that the CASR-SF produces reliable and valid scores of IPV as a unidimensional measure, and that loneliness plays a more important role in understanding the association between IPV and internalizing psychopathology than low social contact. Thus, this study provides information that may help to better inform interventions to reduce the effects of IPV on internalizing psychopathology.

Chapter 4

Intimate partner violence in Ontario: Prevalence, risk factors, and reasons for leaving

Statement of contributions

Natasha Joksimovic acted as lead for study conceptualisation, methodology, formal analysis and writing of this paper. Prof. Philip Hyland acted as supervisor for this chapter, offering guidance and advice throughout as well as offering revisions and reviews during various stages of the writing process. Both Natasha Joksimovic and Prof. Philip Hyland were involved in survey design, distribution, data collection and data curation.

4.1 Abstract

Objectives: This study sought out to explore the lifetime prevalence of intimate partner violence (IPV), risk-factors, and reasons for leaving and/or staying in an abusive relationship within a representative sample of adults living in Ontario, Canada.

Methods: Self-report data were collected from a sample of adults ($N = 1,310$) living in Ontario, Canada. A range of statistical analyses such as Pearson chi-square test, independent samples t-test, binary logical regressions and descriptive statistics were used to explore the experiences of female and male IPV victims separately.

Results: 25.6% of adults living in Ontario had experienced some form of IPV in their lifetime with more women (33.3%) than men (16.3%) having experienced IPV. For women, having children was found to be a risk factor for IPV experience whereas having an annual income of over 100,000 was found to be protective. For men, being younger in age and living in a rural environment were found to be risk factors for IPV experience. Lastly, internalised blame, feelings of powerlessness, having support and having a safe place to go were the factors most commonly found to be associated with whether or not a victim leaves their abusive relationship.

Conclusions: These results show that IPV is a major public health issue affecting over a quarter of the Ontarian population. It is clear that while women and men have similar IPV experiences, there are some gender differences which should be explored and taken into consideration when planning interventions for IPV.

Keywords: Intimate Partner Violence; Risk factors; Gender differences; Leaving; Staying

4.2 Introduction

Intimate partner violence (IPV) is defined as any behaviour within an intimate relationship that causes physical, psychological or sexual harm, and can include any acts of psychological abuse, controlling behaviours, sexual coercion, and physical aggression (World Health Organization, 2013). IPV is a recognized global public health problem affecting 18-38% of women (Desmarais et al, 2012; Joksimovic et al., 2024; WHO, 2021) and 19-31% of men (Desmarais et al, 2012; Willie & Kershaw, 2019). In Canada, 44% of ever-partnered women and 36% of ever-partnered men aged 15 or older have experienced IPV (Cotter, 2021; Government of Canada, 2022). For women and men, psychological abuse was the most common type of IPV (43% & 35% respectively), followed by physical abuse (23% & 17%), and sexual abuse (12% & 2%), and women who were victimised by IPV were more likely to have experienced multiple types of abusive behaviour than men (29% vs. 16%) (Cotter, 2021). Ontario has one of the lowest provincial rates of IPV in Canada with 251 victims of IPV per 100,000, with women having a rate of IPV four times higher than men (398 per 100,000 compared to 99 per 100,000) (Statistics Canada, 2023).

Quite a bit is known about who in the population is more at risk of IPV. Sociodemographic variables found to be associated with an increased risk of IPV include younger age (Capaldi et al., 2012; Spencer et al., 2019), having children (Joksimovic et al., 2024; Romans et al., 2007), belonging to a minority group (Rennison & Welchans, 2000), less education (Cunradi et al., 2002; Stith et al., 2004), living in an urban environment (Rennison & Welchans, 2000; Spencer et al., 2019), being unemployed (Capaldi et al., 2012), and having a lower income (Stith et al., 2004). Many of these risk-factors are shared between women and men (Spencer et al., 2019), but some differences do exist. Younger age, lower income, and living in an urban area have been found to be stronger risk-factors for men than

women, while less education is a stronger risk-factor for women (e.g., Gass et al., 2011; Joksimovic et al., 2024; Spencer et al., 2019).

Less is known about why some individuals who experience IPV remain in relationship with their abusive partner and others end the relationship. What research does exist on this topic suggests that some important motivators for leaving an abusive relationship are a desire to protect children and other family members from abuse (Estrellado & Loh, 2019), having experienced a severe crisis such as rape or physical assault, and wanting to reduce social isolation and loneliness (Evans & Feder, 2016). Barriers to leaving an abusive relationship include being financially dependent on the abuser (Estrellado & Loh, 2014), not having the necessary resources to leave (Heron et al., 2022), having children with the abuser (Evans & Feder, 2016), and feelings of shame or guilt (Heron & Eisma, 2021). Relationship characteristics also appear to play a role with the length of the relationship, being married to the abusive partner (Heron et al., 2022), and living with the abusive partner (Stephens & Melton, 2017) reducing the likelihood of leaving an abusive relationship. Notably, most of this research has been conducted with women meaning very little is known about the factors that influence men to stay or leave an abusive relationship.

This study, based on a representative sample of adults living in Ontario, Canada, was carried out with three main objectives in mind. The first was to determine the proportion of adults living in Ontario who had ever experienced IPV, and to test for gender differences in rates of IPV. Based on the existing literature (e.g., Desmarais et al, 2012; Joksimovic et al., 2024; Roebuck et al., 2024), we hypothesised that women would be significantly more likely than men to have experienced IPV in their lifetime, to have experienced a higher number of IPV experiences, and to have been exposed to specific types of IPV (i.e., psychological, sexual, and physical). The second objective was to determine, for women and men separately, the sociodemographic factors associated with having a lifetime experience of IPV. We

hypothesised that for women and men, lifetime IPV would be positively associated with being younger in age, having children, living in an urban environment, being unemployed, and being of lower income (Capaldi et al., 2012; Cunradi et al., 2002; Rennison & Welchans, 2000). The third objective was to understand, for women and men, what factors act as barriers and facilitators to leaving an abusive relationship. For women, we hypothesised that issues related to finances, available resources, and the involvement of children would play key roles (Estrellado & Loh, 2014; Evans & Feder, 2016; Heron et al., 2022) but given the absence of any such research for men, we did not formulate any specific hypotheses.

4.3 Methods

4.3.1 Participants and Procedures

Data were collected from a sample of adults ($N = 1,310$) living in Ontario, Canada. These data were collected by the research survey company *Qualtrics* who have access to multiple research panels of participants in the province of Ontario. Quota sampling methods were used to construct a sample that was representative of the Ontario population in relation to sex, age, and income distributions, as per contemporary population data available from Statistics Canada. Inclusion criteria were being aged 18 years or older, residing in Ontario, and being able to complete the survey in English. Data were collected from July 28th to October 23rd, 2023, and multiple attention checks and quality control procedures were implemented. Informed consent was obtained from all participants, and ethical approval was granted by the Social Research Ethics Committee at Maynooth University [reference number SRESC-2023-35396].

Within our analytic sample ($n = 1283$) (see ‘Gender’ in our measures section below for reasons of exclusion), 54.5% ($n = 699$) identified as a woman and 45.5% ($n = 584$) identified as a man. The mean age was 47.44 years ($SD = 16.58$, range 18-91). Most participants were born in Canada (75.1%, $n = 963$), 68.7% ($n = 881$) lived in a city/urban

environment, and 26.8% ($n = 344$) indicated that they belonged to a visible minority group. More than half (58.0%, $n = 744$) were in a committed relationship and 50.8% ($n = 652$) had children. Household income ranged from under CA\$30,000 to over CA\$100,000 with 27.0% earning over CA\$70,000; 63.0% ($n = 808$) had a university education, and 55.3% ($n = 709$) were currently employed with 22.9% ($n = 293$) retired, 3.9% ($n = 50$) being in education, 10.2% ($n = 131$) being unable to work due to disability or caring responsibilities, 7.7% ($n = 98$) being unemployed and seeking work.

4.3.2 Measures

Gender: Gender was measured via the question “*What is your gender?*” which had five response options: man, woman, non-binary, identify in another way, and prefer not to say. To which 584 participants (44.7%) identified as a man, 699 (53.5%) as a woman, 15 (1.1%) as non-binary, 3 (0.2%) identified in another way, and 5 (0.4%) preferred not to say. Due to the small number of participants who identified as anything other than man or woman, these 23 participants, plus the four who chose not to answer, were not used in the analysis. Gender was recoded into a binary variable representing men (0) and women (1).

IPV: The Composite Abuse Scale (revised)-Short Form (CASR-SF: Ford-Gilboe et al., 2016) first asks whether respondents have ever, since the age of 16 years, been in an adult intimate relationship, and if they were ever afraid of a partner. Fifteen items are used to measure lifetime experience of different forms of physical (7 items), emotional (6 items), and sexual (2 items) abuse, and participants answer on a ‘Yes’ (1) or ‘No’ (0) basis. Descriptions of the 15 events can be found in Table 1.

IPV related variables: Participants reporting lifetime exposure to IPV were asked a series of follow-up questions. They were asked how old they were when the abuse started, the gender of their abusive partner, if they lived with their abusive partner, if they were married to this person, if they had children with this person, if they had ever disclosed their abuse to

another person, and how long they were in relationship with their abusive partner.

Participants were then asked if they had ended their relationship with their abusive partner.

Those who had ended their abusive relationship were asked “*Did any of the following help you to leave your abusive partner?*” and were provided with a list of eight reasons and asked to choose any that applied (see Table 3). Those who had not ended the relationship with their abusive partner were asked “*Did any of the following hinder you from leaving your abusive partner earlier than you did?*” and were provided with a list of 14 options and asked to choose any that applied (see Table 4). These options were derived from previous research investigating reasons why people either stay with or leave their abuser (i.e. Estrellado & Loh, 2014; Estrellado & Loh, 2019; Evans & Feder, 2016; Heron & Eisma, 2021; Heron et al., 2022; Stephens & Melton, 2017).

4.3.3 Data analysis

Gender differences in exposure to any form of IPV, and specific forms of IPV, were assessed using a Pearson chi-square (χ^2) test, with odds ratios (OR) computed to quantify the magnitude of effects. Gender differences in the total number of IPV experiences was assessed using an independent samples t-test, with Cohen’s *d* values used to quantify the magnitude of the effects, where values of 0.2, 0.5, and 0.8 indicate ‘small’, ‘medium’, and ‘large’ effects (Cohen, 1988).

A binary logistic regression was used to assess the unique associations between sociodemographic factors and lifetime experience of IPV (coded 0 = no, 1 = yes). The predictor variables included age, having children (0 = no, 1 = yes), belonging to a visible minority group (0 = no, 1 = yes), university education (0 = no, 1 = yes), employment status (0 = currently unemployed/student/retired, 1 = currently employed), living in an urban area (0 = rural area/town/village, 1 = city), and annual income (1 = less than \$30,000, 2 = \$30,000-39,999, 3 = \$40,000-49,000, 4 = \$50,000-59,999, 5 = \$60,000-69,999, 6 = \$70,000-79,999, 7

= \$80,000-89,999, 8 = \$90,000-99,999 and 9 = more than \$100,000). These analyses were conducted separately for women and men.

Descriptive statistics were then used to summarise the most common reasons provided by those who had, and had not, ended their abusive relationship. A binary logistic regression was used to determine how a range of relationship characteristics including the age at which the abuse started, the abusive partner's gender identity (0 = man, 1 = woman), living with the abusive partner (0 = no, 1 = yes), being married to the abusive partner (0 = no, 1 = yes), having children with the abusive partner (0 = no, 1 = yes), and disclosure of this abusive relationship to someone (0 = no, 1 = yes) were associated with having left or not left the relationship (the criterion variable was coded 0 = did not leave the abusive relationship, 1 = left the abusive relationship). These analyses were conducted separately for women and men.

4.4 Results

4.4.1 Gender differences in IPV exposure

Overall, 25.6% ($n = 328$) of participants experienced at least one form of IPV in their lifetime, and the mean number of IPV experiences was 1.92 (Mdn = 0.00, SD = 3.95).

Exposure to specific types of IPV ranged from 7.1% ("*Confined or locked me in a room or other space*") to 19.4% ("*Told me I was crazy, stupid, or not good enough*").

There was a statistically significant difference in the proportion of women (33.3%) and men (16.3%) who experienced any form of IPV: $\chi^2(1) = 48.70, p < .001$, OR = 2.57 (95% CI = 1.96, 3.37). Of ever-partnered participants ($n = 1012$), 32.4% had experienced at least one form of IPV during their lifetime, including 43.6% ($n = 233$) of women and 19.9% ($n = 95$) of men ($\chi^2(1) = 64.31, p < .001$, OR = 3.10 [95% CI = 2.34, 4.11]).

Women were significantly more likely to have experienced all 15 events with ORs ranging from 2.29 ('*Tried to convince my family, children, or friends that I am crazy or tried to turn them against me*') to 4.67 ('*Forced or tried to force me to have sex*'). Women ($M =$

2.70, SD = 4.58) also experienced a significantly higher mean number of IPV events than men ($M = 0.98$, SD = 2.77), $t(1175.09) = 8.29$, $p < .001$, $d = .45$. See table 4.1 for details

Table 11

Gender differences on each form of intimate partner violence.

	Overall		Women		Men		χ^2	OR [95% CI]
	n	%	n	%	n	%		
1. Blamed me for causing their violent behaviour	232	18.1	175	25.0	57	9.8	50.12	3.09 [2.24–4.26]
2. Shook, pushed, grabbed or threw me.	224	17.5	169	24.2	55	9.4	48.10	3.07 [2.21–4.25]
3. Tried to convince my family, children, or friends that I am crazy or tried to turn them against me.	128	14.0	128	18.3	52	8.9	23.24	2.29 [1.62–3.23]
4. Used or threatened to use a knife or gun or other weapon to harm me.	119	9.3	86	12.3	33	5.7	16.66	2.34 [1.54–3.55]
5. Made me perform sex acts that I did not want to perform.	158	12.3	126	18.0	32	5.5	46.38	3.79 [2.53–5.69]
6. Followed me or hung around outside my home or work.	157	12.2	120	17.2	37	6.3	34.87	3.07 [2.09–4.52]
7. Threatened to harm or kill me or someone close to me.	123	9.6	99	14.2	24	4.1	37.10	3.85 [2.43–6.10]
8. Choked me.	133	10.4	109	8.5	24	4.1	45.16	4.31 [2.73–6.81]
9. Forced or tried to force me to have sex.	156	12.2	129	18.5	27	4.6	56.99	4.67 [3.03–7.18]

	Overall		Women		Men		χ^2	OR [95% CI]
	n	%	n	%	n	%		
10. Harassed me by phone, text, email, or using social media.	199	15.5	149	21.3	50	8.6	39.50	2.89 [2.06-4.07]
11. Told me I was crazy, stupid, or not good enough.	249	19.4	187	26.7	62	10.6	52.97	3.08 [2.25-4.20]
12. Hit me with a fist or object, kicked or bit me.	161	12.5	117	16.7	44	7.5	24.56	2.47 [1.71-3.56]
13. Kept me from seeing or talking to my family or friends.	174	13.6	130	18.6	44	7.5	33.22	2.80 [1.95-4.03]
14. Confined or locked me in a room or other space.	91	7.1	74	10.6	17	2.9	28.45	3.95 [2.30-6.77]
15. Kept me from having access to a job, money, or financial resources.	122	9.5	91	13.0	31	5.3	21.90	2.67 [1.75-4.07]

Note: χ^2 = chi-square test; OR [95% CI] = odds ratio with 95% confidence intervals; all effects are statistically significant ($p < .001$).

4.4.2 Factors associated with lifetime IPV

The full models predicting lifetime exposure to IPV for women (χ^2 (14, $n = 690$) = 24.48, $p = .040$) and men (χ^2 (14, $n = 577$) = 26.46, $p = .023$) were statistically significant. All regression effects are presented in Table 4.2.

Table 12

Factors associated with a lifetime history of IPV for women ($n = 690$) and men ($n = 577$).

Women		Men	
B	OR (95% CI)	B	OR (95% CI)

Age	-0.00	1.00 (0.99 / 1.01)	-0.02	0.98 (0.97 / 1.00)
Having children	0.61	1.84 (1.30/2.62)	0.46	1.59 (0.96 / 2.62)
Minority group status	-0.04	0.97 (0.66 / 1.42)	0.12	1.13 (0.68 / 1.86)
Education	-0.12	0.89 (0.62 / 1.27)	0.15	1.16 (0.70 / 1.94)
Employment status	0.29	1.34 (0.92 / 1.94)	-0.16	0.86 (0.48 / 1.54)
Urbanicity	-0.04	0.96 (0.68 / 1.36)	-0.85	0.43 (0.27 / 0.68)
Annual income 1 (\$30,000-39,999)	0.06	1.06 (0.63 / 1.79)	0.46	1.59 (0.72 / 3.52)
Annual income 2 (\$40,000-49,999)	-0.23	0.80 (0.45 / 1.41)	0.18	1.20 (0.51 / 2.80)
Annual income 3 (\$50,000-59,999)	-0.22	0.80 (0.46 / 1.41)	-0.80	0.45 (0.14 / 1.45)
Annual income 4 (\$60,000-69,999)	-0.19	0.83 (0.43 / 1.57)	0.35	1.41 (0.56 / 3.58)
Annual income 5 (\$70,000-79,999)	-0.21	0.81 (0.39 / 1.68)	0.21	1.24 (0.44 / 3.52)
Annual income 6 (\$80,000-89,999)	-0.52	0.59 (0.23 / 1.52)	-0.07	0.93 (0.30 / 2.87)
Annual income 7 (\$90,000-99,999)	-0.89	0.41 (0.17 / 1.03)	-0.22	0.80 (0.23 / 2.75)
Annual income 8 (> \$100,000)	-0.95	0.39 (0.18 / 0.81)	0.17	1.19 (0.56 / 2.51)

Note. B = unstandardized Beta value; OR (95% CI) = odds ratio with 95% confidence interval; significant effects in bold.

For women, factors significantly associated with having experienced IPV were having children (OR = 1.84) and earning less than CA\$100,000 or more a year (OR = 0.39). For men, having experienced IPV was significantly associated younger age (OR = 0.98) and living in a rural area (OR = 0.43).

4.4.3 Leavers vs non-leavers

Of those who experienced IPV ($n = 328$), 83.2% ($n = 273$) had ended the relationship with their abusive partner. There was a statistically significant difference in the proportion of women (85.8%) and men (76.8%) who ended the relationship with their abusive partner ($\chi^2(1) = 3.91, p = .048, OR = 1.83 [95\% CI = 1.00, 3.34]$).

Overall, 58.5% of those who left the relationship did so within 5 years, with 1-2 years being the most common time to exit the relationship (25.0%). This was consistent for women and men, with 25.3% of women and 24.2% of men leaving within 1-2 years. Of those who left their abusive partner, women and men rated “*having somewhere safe to go*” as the most common reason that aided them in leaving (82.0% of women and 72.6% of men), followed by “*having support from family or friends*” (75.5% of women and 72.6% of men) and having “*confidence that you would be believed*” (65.5% of women and 63.0% of men). Full details are provided in Table 4.3.

Table 13

Frequencies of factors that facilitated those who left from leaving their abusive partner for women ($n = 200$) and men ($n = 73$).

	Women		Men	
	n	%	n	%
Having sufficient financial resources to leave the relationship.	95	47.5	44	60.3
Having somewhere safe to go to.	164	82.0	53	72.6

Disclosing the abuse to someone else.	123	61.5	35	47.9
Having support from family or friends.	151	75.5	53	72.6
Wanting to protect children or other family members from abuse.	103	51.5	35	47.9
A severe crisis such as rape or physical assault.	83	41.5	19	26.0
Wanting to reduce your isolation from others.	122	61.0	44	60.3
Confidence that you would be believed.	131	65.5	46	63.0

For those who did not leave their abusive partner, “*Feelings of guilt, shame, or embarrassment*” was the most common hindering factor for women (69.7%) and men (59.1%). For women, this was followed closely (and jointly) by “*Feeling powerless to change anything*” (66.7%) and “*Feeling you needed to stay to keep the family together*” (66.7%). For men, the second most common hindering factor was “*Having nowhere to else to go*” (54.5%), followed jointly by “*Feeling powerless to change anything*” (50.0%) and “*Feeling you needed to stay to keep the family together*” (50.0%). Full details are presented in Table 4.4.

Table 14

Frequency of factors which hindered those who did not end the relationship with their abusive partner from leaving for women (n = 33) and men (n = 22).

	Women		Men	
	n	%	n	%
Having insufficient financial resources.	19	57.6	10	45.5
Being financially dependent on the abusive partner.	13	39.4	6	27.3
Having nowhere else to go.	19	57.6	12	54.5
Feelings of guilt, shame, or embarrassment.	23	69.7	13	59.1
Feeling powerless to change anything.	22	66.7	11	50.0

Feeling isolated from family and friends.	18	54.5	8	36.4
Not knowing how to get away.	13	39.4	7	31.8
Fear of repercussions from abusive partner if they found out.	12	36.4	6	27.3
Feeling you needed to stay to keep the family together.	22	66.7	11	50.0
Having children with this partner.	18	54.5	9	40.9
The length of time you had been together.	21	63.6	9	40.9
Not understanding that abuse was occurring and thinking that it was “normal” behavior in a relationship.	12	36.4	6	27.3
Not wanting to “burden” a family member or friend by asking for help.	16	48.5	10	45.5
Fear that you would not be believed.	14	42.4	9	40.9

4.4.4 Factors associated with leaving an abusive relationship

The full models predicting having left an abusive relationship was statistically significant for women ($\chi^2 (6, n = 231) = 34.46, p < .001$) and men ($\chi^2 (6, n = 90) = 31.13, p < .001$). The regression effects are presented in Table 4.5.

Table 15

Binary Logistic Regression analysis predicting likelihood of leaving an abusive relationship for women (n = 231) and men (n = 90).

	Women		Men	
	B	OR (95% CI)	B	OR (95% CI)
Partner's gender	-0.82	0.44 (0.14 / 1.43)	-0.22	0.80 (0.20 / 3.20)

Age at abuse onset	-0.03	0.97 (0.94 / 1.01)	-0.10	0.91 (0.85/ 0.96)
Living with partner	-0.95	0.39 (0.12 / 1.26)	2.38	10.84 (1.30 / 90.37)
Married to partner	-1.17	0.31 (0.11 / 0.86)	-1.84	0.16 (0.02 / 1.17)
Child with partner	-0.29	0.75 (0.27 / 2.04)	-1.17	0.31 (0.06 / 1.58)
Disclosure of abuse	1.84	6.32 (2.57 / 15.54)	2.26	9.57 (2.05 / 44.63)

Note. B = unstandardized Beta value; OR (95% CI) = odds ratio with 95% confidence interval; significant effects in bold.

For women, two variables were significantly associated with having left the abusive relationship: not being married to the abuser (OR = 0.31) and having disclosed the abusive relationship to someone (OR = 6.32). For men, three variables were significantly associated with having left the abusive partner: younger age at the onset of the abuse (OR = 0.91), living with the abusive partner (OR = 10.84), and having disclosed the abusive relationship to someone (OR = 9.57).

4.5 Discussion

We found that a quarter (25.6%) of adults living in Ontario had experienced at least one form of IPV in their lifetime with twice as many women (33.3%) than men (16.3%) having had such an experience. When we focused on only ever-partnered individuals, one-third of adults (32.4%) had experienced IPV with rates more than twice as high in women than men (43.6% vs. 19.9%). The odds of women experiencing each form of IPV were also 2-4 times higher than for men, with the biggest effects observed for certain form of sexual and physical violence. Women also experienced significantly more types of IPV than men. These findings are generally in-line with global prevalence rates of IPV for women and men (Desmarais et al., 2012; Willie & Kershaw, 2019; WHO, 2021). Previous research in Canada suggested that 44% of ever-partnered women and 36% of ever-partnered men had

experienced some form of IPV (Cotter, 2021; Government of Canada, 2022). Thus, our results for women are consistent with this national figure but we found a smaller proportion of men reporting IPV. In light of the fact that living in a rural location (within the province of Ontario) was associated with higher risk of IPV for men, it is possible that the lower rate of IPV that we observed in this study for men compared to prior national findings was due to sampling adults only from Ontario. Another potential explanation might relate to methodological differences in how IPV was measured. Nevertheless, the salient point is that current findings confirm prior findings that a substantial minority of adults have experienced violence from an intimate partner.

Distinct risk factors were found to be associated with a lifetime experience of IPV for women and men. Consistent with previous results, women who had children were more likely to have experienced IPV (e.g., Joksimovic et al., 2024; Romans et al., 2007), while women earning a high salary (more than CA\$100,000) were less likely to have experienced IPV (Stith et al., 2004). For men, younger age and living in a rural environment were associated with a higher odds of lifetime IPV. Younger age has been found previously to be associated with IPV experience (e.g., Capaldi et al., 2012) whereas previous research has found that living in a city is typically more strongly associated with IPV (Rennison & Welchans, 2000; Romans et al., 2007). It is hard to know why rural dwelling was associated with a higher odds of IPV for men in this study, but factors such as isolation and more limited communication may play a role (see DuBois, 2022). These results highlight the importance of considering risk for IPV separately for women and men.

The majority of those who experienced abuse ended their abusive relationship (83.2%) with women being slightly more likely than men to leave their abusive partner. Most of these relationships were terminated within the first five years. Both women and men listed having a safe place to go, having support from family or friends, and having confidence that

they would be believed as the main reasons for being able to leave their abusive relationship. On the other hand, feelings of guilt, shame, embarrassment, and powerlessness, and feeling pressure to keep the family together were the most commonly cited reasons by women and men for not ending the relationship with their abusive partner. While there is limited research on this matter, current findings are generally consistent with previous research (Estrellado & Loh, 2014; Evans & Feder, 2016; Heron & Eisma, 2021; Heron et al., 2022). Notably, however, this study provides one of the first accounts of reasons men provided for leaving, or not leaving, an abusive relationship. These findings are critically important for designing psychosocial interventions to help people exit abusive relationships. Providing a safe place for abused persons to go, to receive support in their transition out of the abusive relationship, and to provide an environment where the abused person will be believed and not judged seems to be of utmost importance. Given the scope of the problem, this could reasonably be viewed as an important public health intervention.

We also sought to identify the relationship characteristics associated with having left an abusive relationship. For women not being married to the abuser was associated with having left the relationship. This is consistent with previous research (Heron et al., 2022) and is in-line with the theory that greater level of investment in the relationship is associated with being less likely to leave an abusive relationship (Estrellado & Loh, 2014). This is also relevant to the previously mentioned hindering factor for leaving an abusive relationship relating to keeping the family together, as having a family can act as a future investment in the relationship, making it harder to leave. This may also be due to fear of losing custody of a child (Stephens & Melton, 2017). For men, being of younger age at the onset of abuse and living with their abusive partner were also found to be associated with leaving an abusive relationship. The different factors at play for women and men is further evidence of the need to study the phenomena of IPV separately for women and men. However, one factor which

was strongly associated with leaving an abusive partner for both women and men was disclosure of the abusive relationship to another person. This links into previous research which found that public disclosure of the abusive relationship was crucial in helping IPV victims to leave their abusive partner (Caridade & Dinis, 2020). It was suggested that disclosing abuse to another person can help to prevent an abused person from changing their mind and returning to, or staying with, the abusive partner. This highlights the need to approach IPV interventions with sensitivity and care, allowing those experiencing IPV to feel comfortable disclosing this information and ensure that these disclosures are validated to reduce feelings of self-blame (Heron et al., 2022).

This study is not without its limitations. Firstly, these data were gathered cross-sectionally. The nature of cross-sectional data precludes us from drawing any causal or predictive inferences. Secondly, the data were collected using non-probability sampling methods which limits the generalizability to the entire Ontario population. Additionally, seeing as Ontario has been found to have one of the lowest rates of IPV in Canada (Statistics Canada, 2023), it may be fair to say that the information gathered on IPV here may not be fully generalizable to the entire population of Canada. Additionally, the extent to which findings from Ontario - a prosperous, North American province - generalises to other populations is likely to be limited. Thirdly, we only examined sociodemographic variables associated with a lifetime experience of IPV. Other factors are clearly important in understanding IPV but the focus for this study was on identifying salient personal characteristics that might identify women and men most at risk of IPV. Lastly, our measurement of IPV experiences could be improved upon in future research. We relied on retrospective reports of IPV which may have resulted in underestimates of IPV, especially for older people who may have experienced IPV a long time ago and forgot about it. Additionally, we used a purely quantitative approach to assessing the most common reasons for leaving or not leaving an abusive relationship. A

qualitative approach may have yielded other reasons which we did not consider. Future work employing open-ended questions or qualitative methods could provide useful additions to the current study findings.

Despite these limitations, our findings show that IPV is a major public health issue affecting approximately a quarter of adults living in Ontario, Canada. Within this population, we have found different risk factors for women and men however their reasoning for either staying or leaving an abusive relationship are similar. This study provides vital information about the experiences of both female and male victims of IPV while highlighting the contextual and relationship factors that act as either barriers or facilitators to leaving an abusive relationship. This information can be used to help design effective interventions to help those who are in an abusive relationship to leave their abusive partner.

Chapter 5

Can depression be measured equivalently in those with and without a history of intimate partner violence?

Statement of contributions

Natasha Joksimovic acted as lead for study conceptualisation, methodology, formal analysis and writing of this paper. Prof. Philip Hyland acted as supervisor for this chapter, offering guidance and advice throughout as well as offering revisions and reviews during various stages of the writing process. Both Natasha Joksimovic and Prof. Philip Hyland were involved in survey design, distribution, data collection and data curation. Ilia Marcev assisted and consulted on methodology.

5.1 Abstract

Research shows that individuals who have experienced intimate partner violence (IPV) are two to five times more likely to suffer from depression than those who have not experienced IPV. However, these kinds of comparisons rest on the assumption that depression is measured equally for these two groups of people (i.e., that there is measurement invariance). This has not yet been tested. In this study, we assessed whether symptoms of depression, as described by the *ICD-11*, can be measured equivalently for those with and without a history of IPV. A representative sample ($N = 1310$) of adults living in Ontario, Canada completed self-report measures of IPV and *ICD-11* depression (the International Depression Questionnaire [IDQ]). A three-factor model best represented the latent structure of the *ICD-11* depression symptoms with factors representing ‘affective’, ‘cognitive-behavioural’, and ‘neurovegetative’ symptoms. Full measurement invariance for the symptoms of *ICD-11* depression was found for those with and without a history of IPV. Those with a history of IPV had a higher mean level of depression and were over two-and-a-half times the odds of meeting diagnostic requirements for *ICD-11* depression to those without a history of IPV (27.7% vs 12.6%). Symptoms of *ICD-11* depression, as measured by the IDQ, can be measured equally among people with and without a history of IPV. These findings provide greater confidence in previous studies demonstrating an increased level of depression among survivors of IPV.

Keywords: Intimate partner violence (IPV); Depression; Measurement Invariance; *ICD-11*

5.2 Introduction

Intimate partner violence (IPV) is defined as “any behaviour within an intimate relationship that causes physical, psychological or sexual harm” (World Health Organization, 2013) and can include acts of psychological abuse, controlling behaviours, sexual coercion, and physical aggression. IPV is associated with an increased risk of poor mental health with an estimated 23-60% of IPV victims reporting mental health problems (Okuda et al., 2011). Depression is one of the most commonly linked mental health disorders to IPV (Chandan et al., 2020; Coker et al., 2002; Lagdon et al., 2014; Mechanic et al., 2008 & Nathanson et al., 2012) occurring two-to-five times more frequently in female survivors of IPV than those who have never experienced IPV (Beydoun et al., 2012; Golding, 1999). A recent meta-analysis of 11 studies including 118,544 female participants found a positive association between IPV and depression in ten studies, and those who had experienced IPV having twice the odds of subsequently developing depression than those without a history of IPV (Watson & Bitsika, 2025).

Reliable and meaningful comparisons of rates and symptoms of depression between those with and without a history of IPV rests on the assumption that depression is measured in the same way for these two groups of people: this is known as measurement invariance. Without this, the results of group comparisons will be biased (Hirschfeld & Von Brachel, 2014; Kern et al., 2016; O’Hara et al., 2018). This is especially important for measuring depression among people with a history of IPV because certain symptoms of depression might operate – or be measured – differently as a function of having experienced IPV.

The psychological abuse that many IPV victims experience often has a personal focus and can involve abuse such as name calling, domination, and being told they are crazy, stupid, or not good enough, all of which are likely to evoke feelings of shame or guilt in the victim (Beck et al., 2011). These feelings of shame and guilt can lead a person to describe

themselves as less-than or “unworthy” (Lewis, 1971). Additionally, victims of IPV who experience repeated physical violence may reasonably fear for their life and therefore think about death (or suicide) on a regular basis (Ivany et al., 2018). When symptoms of depression like these – feelings of worthlessness, repeated thoughts of death – are being assessed in people who have experienced, or are currently experiencing, IPV, it is possible that scores could be systematically different due to the experience of IPV. If so, a person with a history of IPV would score higher on a measure of depression than a person without a history of IPV because of their abuse history, not necessarily because they are experiencing higher levels of depression. On the other hand, if symptoms of depression are measured equivalently for those with and without a history of IPV, then group differences would reflect actual differences in depression.

Despite the fundamental importance of establishing measurement invariance prior to making group comparisons, very little research exists examining measurement invariance within IPV populations. The only such study which could be found within an IPV sample investigated the measurement of depression, anxiety and posttraumatic stress within an all-female group and examined for measurement invariance across those with or without brain injuries as a result of IPV (Karr et al., 2024). Measurement equivalence was established here with results finding evidence that the PHQ-8, GAD-7 and PCL-5 were reliable and valid to use among female survivors of IPV and that those with IPV related brain injuries had higher PTSD symptom severity (Karr et al., 2024). There is therefore a major gap in the literature assessing whether symptoms of depression can be measured equivalently among those (males and females) in the general population with and without a history of IPV.

Depression can be conceptualised in different ways, but the global standard is provided by the 11th version of the *International Classification of Diseases (ICD-11*: World Health Organization [WHO], 2019). *ICD-11* states that “*A depressive episode is*

characterised by a period of depressed mood or diminished interest in activities occurring most of the day, nearly every day during a period lasting at least two weeks accompanied by other symptoms such as difficulty concentrating, feelings of worthlessness or excessive or inappropriate guilt, hopelessness, recurrent thoughts of death or suicide, changes in appetite or sleep, psychomotor agitation or retardation, and reduced energy or fatigue.” The WHO recently released the *Clinical Descriptions and Diagnostic Requirements for ICD-11 Mental, Behavioural and Neurodevelopmental Disorders* (CDDR: WHO, 2024) which provides a more detailed description of depression and a set of diagnostic requirements.

The CDDR (WHO, 2024, pp. 212-213) describes depression symptoms as belonging to three symptoms clusters: ‘affective’ symptoms (depressed mood and diminished interest or pleasure), ‘cognitive-behavioural’ symptoms (concentration difficulties, low self-worth, hopelessness, recurrent thoughts of death or suicidal actions), and ‘neurovegetative’ symptoms (sleep problems, appetite changes, psychomotor agitation or retardation, and fatigue). Diagnostic requirements involve the presence of five or more symptoms, with at least one symptom being from the affective cluster (plus evidence of functional impairment). The description of depression in the CDDR provides somewhat ambiguous information about the expected latent structure of the symptoms. On the one hand, the diagnostic requirements suggest a unidimensional structure to the symptoms (i.e., any five of the listed symptoms, but some priority given to the affective symptoms), while the description of the symptoms as representing ‘affective’, ‘cognitive-behavioural’, and ‘neurovegetative’ problems implies a multidimensional structure. Some preliminary work with a measure specifically designed to capture the *ICD-11* depression symptoms, the International Depression Questionnaire (IDQ: Shevlin et al., 2023), has found that the three-factor model is a better representation of the latent structure of the scale items than a one-factor model (Hyland et al., under review). More research is required to understand the optimal representation of the symptoms of *ICD-11*

depression. This is a necessary pre-requisite before testing if there is measurement invariance in the symptoms of depression for people with and without a history of IPV.

The main objective of this study was to assess whether *ICD-11* depression symptoms, as measured by the IDQ, can be measured equally for those who have experienced IPV and those who have not. Three research objectives were formulated. The first was to assess the latent structure of the IDQ items among persons with and without a history of IPV to determine whether the symptoms of *ICD-11* depression are better described by a one-factor model or a three-factor model. The second objective was to test for measurement invariance across people with and without a history of IPV. A third objective was developed, conditional on measurement equivalence being established, to compare levels and rates of depression between those with and without a history of IPV.

5.3 Methods

5.3.1 Participants and procedures

This study is based on a representative sample of adults living in Ontario, Canada ($N = 1,310$). These data were collected by the research survey company *Qualtrics* who have access to multiple research panels of participants in the province of Ontario. The sample was constructed to be representative of the Ontario adult population in relation to sex, age, and income distributions, as per contemporary population data available from Statistics Canada. Quota sampling methods were used to construct the sample. Inclusion criteria were being aged 18 years or older, residing in Ontario, and being able to complete the survey in English. Data were collected from July 28th to October 23rd, 2023, and multiple attention checks and quality control procedures were implemented (i.e., CAPTCHA technology to prevent bot access, screening and removing responses from duplicate IP addresses, or patterns of suspicious responding). Informed consent was obtained from all participants, and ethical

approval was granted by the Social Research Ethics Committee at Maynooth University [reference number SRESC-2023-35396].

Within this sample, 53.4% ($n = 699$) identified as a woman, 44.6% ($n = 582$) as a man, 1.1% ($n = 15$) as non-binary, 0.2% ($n = 3$) as identified in another way, 0.4% ($n = 5$) preferred not to say and 0.3% ($n = 4$) chose not to answer this question. The mean age was 47 years ($SD = 16.63$, range 18-91), 75.2% ($n = 985$) were born in Canada, and 68.5% ($n = 897$) lived in a city. Additionally, 57.5% ($n = 753$) were in a committed relationship and 49.8% ($n = 653$) had no children. The majority of the participants (64.9%, $n = 229$) had a university education and were employed (55.1%, $n = 722$). Household income ranged from under \$30,000 to over \$100,000.

5.3.2 Measures

IPV: The Composite Abuse Scale (revised)-Short Form (CASR-SF: Ford-Gilboe et al., 2016) first asks whether respondents have ever, since the age of 16 years, been in an adult intimate relationship, and if they were ever afraid of a partner. Fifteen items are then used to measure lifetime experience of different forms of physical (7 items), emotional (6 items), and sexual (2 items) abuse. All items are answered on a ‘Yes’ (1) or ‘No’ (0) basis. This information was used to identify participants with a without a history of IPV (i.e., those with a score of 0 on the CASR-SF were classified as not having a lifetime experience of IPV, and those with a score of 1 or higher were classified as having a lifetime experience of IPV).

ICD-11 Depression: The IDQ (Shevlin et al., 2023) is a self-report measure of *ICD-11* depression symptoms. There are nine items and participants indicate how frequently they experienced each symptom over the last two weeks using a five-point Likert scale (0 = *Never*, 1 = *Only a few days*, 2 = *Half the days*, 3 = *Most days*, and 4 = *Every day*). Items 1 and 2 represent the ‘affective’ symptoms and are suffixed with ‘...for most of the day’ to ensure this diagnostic requirement is measured. Items 3-6 represent the cognitive-behavioural

symptoms, and items 7-9 represent the ‘neurovegetative’ symptoms. A score of 3 or 4 on the Likert scale led to a symptom being deemed as ‘present’ for diagnostic purposes, as this corresponds to the requirement that a symptom occurs for most days over a two-week period. Lastly, there is a question which assesses if these symptoms have caused functional impairment in personal, family, social, educational, occupational, or other important areas of life with responses recorded on a ‘Yes’ or ‘No’ basis. Scores range from 0-36, with higher scores reflecting higher levels of depression. The internal reliability of the IDQ scores in this sample was excellent ($\alpha = .96$).

5.3.3 Data analysis

All analyses were conducted using IBM SPSS statistics (Version 29.0.2.0) and Mplus version 8.2 (Muthén & Muthén, 1998-2017). Descriptive statistics were used to summarise levels of IPV and depression in the full sample. The latent structure of the IDQ was assessed using confirmatory factor analysis (CFA) and two models were tested: a unidimensional model (Model 1) where all nine IDQ items loaded onto a single “Depression” factor, and a three-factor model (Model 2) indicated by the CDDR (WHO, 2024) where two items loaded onto an “affective symptoms” factor, four items loaded on to a “cognitive-behavioural symptoms” factor, and three items loaded onto a “neurovegetative symptoms” factor. The mean and variance-adjusted weighted least squares (WLSMV) estimator was used to estimate these models as it provides accurate parameter estimates, standard errors, and test-statistics for categorical indicators (Flora & Curran, 2004). Acceptable model fit was indicated by a non-significant chi-square (χ^2) value; Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) values $> .90$; and Root Mean Square Error of Approximation (RMSEA) and Standardized Root Mean Square Residual (SRMR) values $< .08$, as laid out in the standard guidelines for determining model fit (Hu & Bentler, 1999). A χ^2 difference test was used to compare the fit of the two models.

Following selection of the best fitting model, measurement invariance was evaluated for those with and without a lifetime history of IPV. Three nested models were tested in order to evaluate measurement invariance: a configural model, a metric model, and a scalar model. The configural model was tested first to assess if the best fitting model holds in both groups. In the configural model there are no constraints on the model parameters, thus factor loadings and item thresholds are estimated freely. If overall model fit is acceptable, configural invariance is assumed. Next, metric invariance was assessed by constraining the factor loadings of all items to be equal across both groups. This model is then compared to the configural model. Metric invariance is established if this model fits the data as well as or better than the configural model, implying that the scale items relate to the underlying factor in the same way for both groups. Following this, scalar invariance was tested by also constraining the item thresholds to be equal and comparing the fit of this model to the metric model. Scalar invariance is essential for group comparisons of the mean as it indicates that the two groups have the same starting point on the scale items. If the scalar model fit is not worse than the metric invariant model, scalar invariance is established. Meade et al.'s (2008) recommendations were used to evaluate the relative fit of these models: a non-significant χ^2 difference test, a change (Δ) in the CFI $< -.02$, and a RMSEA $> .007$ as well as Marsh et al. (2009)'s recommendation regarding an improvement or TLI = 0.

Lastly, conditional on measurement invariance being established, an independent sample t-test was conducted to test for group differences on mean levels of depression scores as well as a Pearson χ^2 test to examine group differences in the proportions that meet diagnostic requirements for *ICD-11* depression. For the t-test, Cohen's d values are reported to quantify the magnitude of the effect where values of 0.2, 0.5, and 0.8 reflect 'small', 'medium', and 'large' differences (Cohen, 1988). For the χ^2 test, odds ratios (OR) are reported to quantify the magnitude of the differences.

5.4 Results

5.4.1 Descriptive statistics

In total, 25.6% ($n = 336$) of participants had experienced at least one form of IPV in their lifetime. Depression scores ranged from 0-36 with a mean of 12.25 ($Mdn = 9.00$, $SD = 10.58$), and 16.5% ($n = 216$) met the diagnostic requirements for depression based on the *ICD-11* rules.

5.4.2 CFA and measurement invariance results

While the unidimensional model of the IDQ provided adequate fit to the sample data ($\chi^2 (27) = 802.59$, $p < .001$; $CFI = .989$, $TLI = .986$, $RMSEA = .148$ (90% CI = .139, .157), $SRMR = .021$), the three-factor model fit the data slightly better ($\chi^2 (24) = 308.07$, $p < .001$; $CFI = .996$, $TLI = .994$, $RMSEA = .095$ (90% CI = .086, .105), $SRMR = .013$). A χ^2 difference test indicated that the three-factor model was significantly better than the unidimensional model ($\chi^2 (3) = 300.00$, $p < .001$). Thus, we concluded that the three-factor model was the more appropriate solution for the latent structure of the IDQ in this sample.

All standardized factor loadings were positive, statistically significant ($p < .001$), and strong, ranging from .81 to .95. The three factors were highly correlated with each other with scores ranging from .76 (Neurovegetative symptoms with Cognitive behavioural symptoms) to .82 (Cognitive behavioural symptoms with Affective symptoms).

The measurement invariance results are presented in Table 5.1. The configural model had acceptable fit indicating that the three-factor model fit the data acceptably for both groups. There was no significant difference between the configural and metric models ($\Delta\chi^2 (6) = 5.66$ $p = .462$), and the ΔCFI , ΔTLI , and $\Delta RMSEA$ values showed a small improvement in model fit when the factor loadings were constrained to be equal. Finally, the fit of the scalar model was not significantly different from the fit of the metric model ($\Delta\chi^2 (6) = 17.64$

$p = .820$), and the ΔCFI , ΔTLI , and $\Delta RMSEA$ indicated a small improvement in fit for constraining the item thresholds to be equal.

Table 16

Group differences between individuals with and without IPV on depression items.

	IPV	M	SD	t	d
Felt down or depressed for most of the day?	Yes	1.86	1.33	7.79*	0.51
	No	1.22	1.25		
Experienced less interest or pleasure from normal activities for most of the day?	Yes	1.97	1.30	8.87*	0.56
	No	1.25	1.27		
Have had difficulty concentrating?	Yes	1.99	1.39	8.48*	0.55
	No	1.26	1.30		
Had feelings of worthlessness or guilt?	Yes	1.93	1.47	8.50*	0.56
	No	1.15	1.36		
Felt hopeless?	Yes	1.86	1.45	7.80*	0.51
	No	1.16	1.34		
Had recurrent thoughts of death or suicide?	Yes	1.17	1.40	5.34*	0.37
	No	.71	1.16		
Have had changes in appetite or sleep?	Yes	1.92	1.41	8.12*	0.53
	No	1.21	1.32		
Moved slower or felt more restless?	Yes	1.96	1.33	8.87*	0.56
	No	1.23	1.29		
Experienced reduced energy or fatigue?	Yes	2.25	1.33	9.62*	0.61
	No	1.45	1.31		

Note. d = Cohen's d; Statistical significance: * $p < .001$

5.4.3 Group comparisons

Individual depression item scores for those with and without a history of IPV are presented in Table 5.2. Those who experienced IPV had significantly higher scores on all depression items.

Table 17

Results of the measurement invariance tests in the IDQ model.

Model	χ^2	df	CFI	TLI	RMSEA (90% CI)	SRMR
Configural	324.01*	48	.996	.994	.094 (.084-.103)	.014
Metric	320.45*	54	.996	.995	.087 (.078-.096)	.014
Scalar	280.83*	60	.997	.997	.063 (.055-.071)	.015

Note: χ^2 = chi-square statistic, df = degrees of freedom, CFI = comparative fit index, TLI = Tucker-Lewis Index, RMSEA = Root mean square error of approximation; SRMR = standardized root mean square residual; * = $p < 0.001$.

There was a significant, ‘medium’ sized difference in mean depression scores ($t(548.52) = 9.37, p < .001, d = .61$) with those who had experienced IPV ($M = 16.92, SD = 10.77$) scoring higher than those who had not ($M = 10.64, SD = 10.03$). A significantly higher proportion of people with a history of IPV met diagnostic requirements for *ICD-11* depression than those with a history of IPV: (27.7% vs 12.6%: $\chi^2(1, n = 1310) = 41.10, p < .001, OR = 2.65$ (95% CI = 1.95, 3.59)).

5.5 Discussion

This study set out to determine if symptoms of depression can be measured equivalently for those with and without IPV experience. This study was based on a quasi-representative sample of adults living in the province of Ontario, Canada, and it was found that approximately one-quarter (25.6%) of Ontarians had experienced at least one form of

IPV within their lifetime, and 16.5% met diagnostic requirements for depression according to the *ICD-11*. As with other Western nations, a substantial minority of the adult population has directly experienced some form of IPV (Desmarais et al., 2012; Joksimovic et al., 2024; Willie & Kershaw, 2019). Moreover, the proportion of people meeting requirements for an episode of depression is somewhat higher than what is typical in other Western nations; for example, Shevlin et al. (2023) reported that 7.4% of adults in the United Kingdom met diagnostic requirements for *ICD-11* depression using the IDQ.

The CFA results provided support for the IDQ as a measure of *ICD-11* symptoms of depression. Both the unidimensional model and the three-factor model implied by the CDDR fit the data reasonably well across most indices of model fit (the somewhat high RMSEA value was noted for both models and indicates some minor model misspecification). In a direct comparison, the three-factor model fit the data significantly better than the one-factor model. This is consistent with preliminary work performed after the release of the CDDRs (Hyland et al., under review), and suggests that the *ICD-11* symptoms of depression may be most accurately described by three correlated sets of symptoms.

With the main focus of this study being on whether symptoms of depression are measured equally among those with and without a history of IPV, the measurement invariance results were of utmost interest. These results provided unequivocal evidence that the symptoms of depression were measured equally for these two groups of people. The three-factor model fit the data well for both groups, the same measurement scale was operating for both groups, and both groups answered all of the items from the same starting points. Establishing scalar invariance means that levels of depression can be meaningfully compared between those with and without a history of IPV. This is very encouraging as it provides a degree of confidence in the validity of previous research demonstrating that victims of IPV have higher levels of depression (Chandan et al., 2020; Coker et al., 2002;

Lagdon et al., 2014; Mechanic et al., 2008 & Nathanson et al., 2012; Watson & Bitsika, 2025). However, while these results are encouraging, it is important that further measurement invariance be tested in other IPV samples.

After establishing that the symptoms of *ICD-11* depression were measured equally for those with and without a history of IPV, differences between these groups were assessed at the item level, overall mean scores, and proportions meeting diagnostic requirements. Those with a history of IPV scored higher on all symptoms of depression, with effect sizes pretty similar across all items, and generally indicative of ‘medium’ size differences. The smallest difference was observed for the symptom representing repeated thoughts of death and suicide, and the largest difference was observed for the symptom representing reduced energy and general fatigue. Unsurprisingly then, individuals with a history of IPV had significantly higher overall depression scores. This translated to quite a substantial difference at the probable diagnostic level. Just over a quarter of those with a history of IPV (27.7%) met diagnostic requirements for *ICD-11* depression, meaning they were over two-and-a-half times the odds of meeting diagnostic requirements than those without a history of IPV. A recent meta-analysis found that female survivors of IPV had about twice the odds ($OR = 1.92$) of screening positive for depression than those who had not experienced IPV (Watson & Bitsika, 2025). Generally speaking, the difference observed in this study is consistent with the broader literature on IPV and depression (Beydoun et al., 2012; Golding, 1999).

This research is not without its limitations. First, lifetime experience of IPV was measured and while it likely that some of these people were currently experiencing IPV, we could not establish this. It will be important for future studies to test if depression can be measured equivalently for those who are currently experiencing IPV. Second, while efforts were made to generate a representative sample, the non-probability nature of the sampling means that the sample was unlikely to be entirely representative of the Ontario population.

This means generalizations to the population are limited. Likewise, generalizations to the wider Canadian population, and populations beyond Canada are limited. It will be important to try and replicate these findings in culturally diverse populations.

Nevertheless, this study provides an important contribution to the existing literature on the topic of IPV and depression by providing evidence that depression symptoms can be measured equivalently between those with and without a history of IPV. This allows for a greater confidence in the findings of previous research examining the link between IPV and depression which state that those with IPV experience tend to experience more depression symptoms. Furthermore, this study also suggests that the symptoms of depression described in *ICD-11* might be best conceived of as multidimensional in nature.

Chapter 6

Discussion

6.1 Introduction

This thesis set out to expand upon what is known and understood about the prevalence, gender differences, risk factors and psychosocial consequences of IPV victimisation using nationally representative data collected in both Ireland and Ontario, Canada. To achieve this, several research objectives were formulated. The first was to determine what proportion of adults living within the Republic of Ireland have a lifetime history of IPV and to investigate gender differences, profiles of IPV experiences and the associated risk factors and relation to suicide for each of these profiles. The second objective was to test the psychometric properties of the CASR-SF among a mixed sample of Irish IPV survivors and subsequently use this to examine the role of social contact and loneliness in linking IPV and internalizing distress. The third objective sought to investigate the factors involved in a victim's decision to either stay with or leave their abuser while also gathering up-to-date information on prevalence and associated risk factors of IPV victimisation separately for men and women in Ontario, Canada. And finally, the fourth objective of this thesis was to examine what the best fitting model of depression using the International Depression Questionnaire would be and subsequently use this to investigate whether depression can be measured equivalently for a mixed gendered sample of adults with and without IPV experience. The results of these investigations will be presented and discussed in this chapter.

6.2 Overview of key findings

6.2.1 Chapter 2

The first empirical chapter of this thesis (Chapter 2) sought to examine the prevalence of IPV within the general Irish adult population, and to better understand gender-specific profiles of IPV, their risk factors, and their relationship with suicidality. This study used data

gathered as part wave 4 of the Irish arm of the COVID-19 Psychological Research Consortium (C19PRC) study ($N = 1098$) in order to achieve these goals. Key findings were: (1) 32.1% of the sample experienced lifetime IPV, with IPV more common among females (38.3%) than males (26.6%), (2) females had a more complex profile of IPV than males (4 vs 3 classes), (3) younger age, having children, lower income, lower social support, and lower social contact were independently found to be risk factors among females, while living in an urban environment, having children, and lower social support were found to be risk factors among males, and (4) all patterns of IPV, for males and females, were associated with significantly higher likelihood of experiencing multiple suicide related phenomena.

Despite some limitations (see Chapter 2), this chapter makes a meaningful contribution to our knowledge of the scope of the problem of IPV in the Republic of Ireland, demonstrating that it is a major public social health issue by providing up-to-date information relating to its prevalence, patterns and its association with a range of risk factors and suicidal phenomena for both men and women. This information can be used to help inform government policies relating to IPV as well as aid organisation who are responsible for helping victims of IPV.

6.2.2 Chapter 3

The second empirical chapter of this thesis (Chapter 3) also used the data collected as part of the Irish arm of C19PRC study ($N = 1098$) to investigate the specific roles both social contact and loneliness play in explaining the association between IPV and internalizing distress. But first, the psychometric properties of the Composite Abuse Scale Short Form (CASR-SF) (Ford-Gilboe et al., 2016), a relatively new measure of IPV, had to be assessed before such analysis could begin. A subsample was used for this in which all participants had endorsed having experiences any form of IPV within their lifetime ($N = 353$). Key findings were (1) A single-factor model best explained the CASR-SF which fitted the data well, and

had excellent internal reliability, and (2) there was a direct association found between IPV and internalizing distress, and this association was partially mediated by loneliness but not social contact.

This chapter, despite its methodological limitations (see Chapter 3), has important implications for intervention effects to aid victims of IPV. Knowledge that it is higher levels of loneliness, not lower levels of social contact, that appears to matter most in relation to IPV's link to internalizing distress, indicates that interventions designed to reduce loneliness in victims may be an important clinical objective in helping survivors of IPV with mental health problems. Furthermore, this chapter provides valuable information on the latent structure of the CASR-SF and its reliability, which can be brought forward into future research.

6.2.3 Chapter 4

Representative data collected from adults living in Ontario, Canada (N = 1310) was utilised in empirical chapter 3 (Chapter 4) to examine the general lifetime prevalence rates of IPV as well as the gender differences in rates of IPV exposure, the associated sociodemographic risk factors for IPV victimisation and to investigate what factors acted as barriers and facilitators to leaving an abusive relationship. The key findings of this chapter were (1) 25.6% of adults living in Ontario had experienced some form of IPV in their lifetime with more women (33.3%) than men (16.3%) having experienced IPV, (2) having children and having a lower income were found to be risk factors for IPV victimisation for women whereas being younger in age and living in a rural environment were found to be risk factors for men, and (3) feelings of powerlessness, internalised blame, having support and having a safe place to go were the factors found to be most commonly associated with whether or not a victim leaves their abusive relationship.

Contained within this chapter is vital information relating to the experiences of both female and male victims of IPV in Ontario, with it highlighting the contextual and relationship factors that influence a victim's decision to either stay in or leave an abusive relationship. These findings can be used to help design effective interventions to help those who are in an abusive relationship to leave their abusive partner as well as to help inform public policy in an effort to reduce the problem of IPV within the population.

6.2.4 Chapter 5

The last empirical chapter in this thesis (Chapter 5) uses the same data collected in Ontario, Canada as in Chapter 4 with the objective to investigate whether depression, as measured by the International Depression Questionnaire IDQ (Shevlin et al., 2022) can be measured equivalently for a mixed gendered sample of adults with and without IPV experiences. The key findings of this study were (1) The latent structure of the ICD-11 depression symptoms was best represented by a three-factor model with factors representing 'affective', 'cognitive-behavioural', and 'neurovegetative' symptoms, (2) full measurement invariance was established for the symptoms of ICD-11 depression in those with and without a history of IPV, (3) those with a history of IPV had a higher mean level of depression than those who did not (16.92 vs 10.64) and (4) having a history of IPV experience increased the odds of meeting diagnostic requirements for ICD-11 depression by over two-and-a-half times compared to those without a history of IPV (27.7% vs 12.6%).

The results of this chapter meaningfully contribute to the literature around IPV and depression by providing evidence that depression symptoms can be measured equivalently between those with and without a history of IPV while also adding support to the CDDRs recommendation of three distinct symptom clusters of ICD-11 depression. And finally, this chapter highlights the link between IPV experiences and depression, information that is valuable for designing interventions targeted at helping those experiencing IPV.

6.3 Discussion of key findings

This section delves deeper into the findings of this thesis and explores what these results tell us about IPV and what can be gained from this knowledge. This research highlights the prevalence and impact of IPV among both the Irish and Ontarian adult population and demonstrates that IPV is a major public social health issue. Between chapters 2 and 4, it is identified that almost one-in-three women and one-in-four men in Ireland and one-in-three women and one-in-six men in Ontario have experienced IPV within their lifetime. These rates illustrate that both men and women are at risk of experiencing IPV within their lifetime, thus highlighting the importance of including both genders in IPV research. This thesis demonstrates that men also experience high levels of IPV victimisation, experiencing all forms of violence, physical, sexual and psychological, thus challenging traditional feminist perspectives of IPV, viewing IPV as a case of “pure victims and evil villains” (Loseke, 2001, p. 107). However, that being said, it must be acknowledged that the findings of this thesis are consistent with previous literature suggesting that women are shown to have more varied, complex, diverse and severe IPV experiences (Ansara & Hindin, 2010).

This research would endorse a more gender balanced approach to IPV research. It is clear from these results that both men and women can be victims of IPV, and both can fall victim to the associated negative psychosocial consequence of IPV victimisation. This is important information to bring to light as it is also found, both within this thesis and previous works (Scott-Storey et al., 2022; Tsui et al., 2010), that men are less likely to disclose their IPV experiences, seek-help or leave their abusive relationship due to fear of stigmatisation, embarrassment, feelings of shame and fear of not being believed, which often stems from the prevalent gender-biased view of IPV (O’Connor, 2020; Tsui et al., 2010). Thus, research

involving both male and female experiences of IPV is essential to help raise awareness and help reduce this stigma.

Leading on from prevalence rates, this thesis sought to explore the patterns of IPV among male and female survivors of IPV. The LCA results contained within Chapter 2 describe these different patterns of IPV experiences for both male and female victims in relation to type of abuse, be it physical, sexual or psychological in nature. These results provide evidence on the existence of different patterns and profiles of IPV experiences that can exist within male and female victims, but how do we interpret these empirical findings in light of existing theoretical frameworks of IPV such as Johnson's (1995) typologies, which also examines different patterns of IPV? While these LCA results and Johnson's typologies may not appear to map onto each other particularly closely, it is nevertheless important to discuss how they relate to one another.

Johnson's typologies were developed to help unify the feminist and family violence approaches to IPV by focusing on differentiating the types of patterns of IPV which exist in order to better explain the central dynamics of violence, its context and the associated consequences (Kelly & Johnson, 2008). Johnson's (1995; 2008) framework proposed four different typologies of IPV in order to distinguish between each form of violence into different types of IPV based on the contexts and motivations for committing the violence. These four typologies are known as coercive controlling violence (CCV), situational couple violence (SCV), violence resistance (VR) and mutual violent control (MVC) (Cares et al., 2024; Johnson, 2008; Johnson et al., 2014). However, within these different typologies, are there different patterns of the forms of abuse experienced, such as physical, sexual and psychological? This is where LCA work can add value as LCA is used to investigate and search for homogeneous groups within populations. Within this thesis, Johnson's typologies were not taken into account for the purposes of analysis as information relating to the context

and the motivations in which the abuse was taking place were not available and so patterns of violence in relation to the forms of violence experienced were measured instead. Thus, moving forward, an important advance to this area of research would be to first differentiate victims in terms of Johnson's typologies and then within each of these typologies, focus in and explore the kinds of patterns of violence that may exist. Would the results be vastly different to those found in this thesis? Would they differ greatly among the different typologies? Future research should strive to answer these questions.

Following this, this thesis sought to identify who in the population is most likely to be at risk of experiencing IPV. This is essential for both screening for IPV and designing effective interventions for reducing IPV. Across Chapters 2 and 4, having children, a lower income, low social contact and low social support were associated with an increased likelihood of a women experiencing IPV and having children, being younger in age, low social support and living in an urban environment (in Ireland) or living in a rural environment (in Ontario) were associated with an increased risk of IPV experience for men. If one were to look at this through an ecological lens, this thesis mostly focused on risk factors that would be considered to belonging to Dutton's (1995) exosystem. However, there were some factors which fall into the microsystem category such as social contact and having children while factors such as minority status ties in some macrosystem factors. Ontogenetic factors however were not explored in relation risk factors in this thesis. Gender, while viewed as an ontogenetic risk factor, was not explored as a risk factor in this research, but instead this thesis sought to study the gender differences in experiences. Future research should endeavour to explore more macrosystem, microsystem and ontogenetic factors in relation to IPV experiences.

In respect to gender differences in the associated risk factors, while their risk factors may appear similar, there are some important differences in factors which relate to male and

female likelihoods of experiencing IPV and thus it is important to treat and assess these differently for men and women. This information can be beneficial when screening for IPV as knowing which individuals in the community are at an elevated risk of being victims of IPV can allow clinicians to prioritise screening for IPV within these populations.

Social factors and their relationship to IPV were explored within this thesis. The results presented herein emphasise the importance of social support in protection against IPV victimisation and its associated consequences. Social variables were consistently found to be linked to IPV with Chapter 2 demonstrating how low social support acted as a risk factor for IPV victimisation for both Irish men and women alongside social contact which acted as a risk factor for just women.

When social support variables were investigated in relation to IPV's association with internalizing distress in Chapter 3, it was found that higher levels of the subjective measure of a lack of social support, known as loneliness, rather than the objective measure, social contact, was found to be positively associated with IPV and internalizing distress, accounting partially for the association between these two variables. Thus, higher levels of loneliness was a risk factor for higher levels of internalizing distress in those who had experienced IPV.

Lastly, social support variables were also found to be of importance when considering factors involved in a person's decision to either stay with or leave an abusive partner. Both men and women identified having support from family and friends as being one of the key elements which aided them in leaving their abusive relationship. These findings highlight the importance of feeling supported for IPV victims, which in turn can be informative for designing effective interventions for those experiencing IPV.

It is clear that victims need support to transition out of abusive relationships. Furthermore, as results have shown that it is the subjective aspects of social support, namely loneliness, where one subjectively assesses their own current social and interpersonal

circumstances, that seem to be more highly associated with IPV and its subsequent mental health effects, this is where clinicians should focus their efforts. Interventions designed simply to increase social interactions and increase social contact may not be wholly effective. That is not to imply that these methods would not be beneficial to IPV victims, especially as the objective measure of social contact was found to be an important risk factor for male IPV victimisation. However, interventions targeting social contact alone may not have the same effect at targeting the mental health outcomes associated with IPV experience. Instead, it may be more useful for clinicians to focus on interventions designed to address feelings of loneliness by encouraging more socialisation or targeting different coping strategies such as psychotherapy, animal therapy or other multicomponent interventions (Hoang et al., 2022).

It is also important to address that, in this research, loneliness is assessed as a mediating factor between IPV and internalising distress, however, loneliness itself is often an outcome of IPV victimisation. Isolation and depriving someone of social connection and support is a key tactic of coercive control, allowing the perpetrator greater control over the victim (Stark, 2007). This works to undermine the victim's independence, making them feel more dependent on their abuser (Tolmie et al., 2024). Victims who feel alone are often less likely to leave an abusive relationship out of fear of loneliness, putting them at greater risk of continued abuse (Goodman & Epstein, 2020; Hendy et al., 2003). Thus, further highlighting the need to address loneliness through loneliness intervention programmes and social connectedness, not only to help lessen the mental health consequences of IPV but also to help those experiencing IPV to either have the courage to leave their abuser or help protect them from entering another abusive relationship in the future.

Furthermore, in relation to mental health problems associated with IPV, Chapter 2 of this research provides important information relating to the associations between IPV experiences and multiple suicidal variables, namely suicidal ideation, non-suicidal self-

injurious behaviour (NSSI) and attempted suicide. For both men and women, membership to any pattern of IPV experience was associated with significantly higher likelihood of each suicidal variables, with greater IPV exposure being found to be associated with an increased risk of all suicide related outcomes, which falls in line with existing research (Devries et al., 2013; McLaughlin et al., 2012).

Belonging to the “Systematic abuse” class, in which members were systematically experiencing high levels of all forms of IPV, physical, sexual and psychological, was linked with significantly higher rates on all suicidal variables. Within this class, 63% of women and 69% of men experience suicidal ideation, 29% of women and 69% of men report NSSI and 29% of women and 53% of men had attempted suicide. Male suicidal correlates of systematic IPV experiences appear to be particularly high with over half of the men belonging to the “systematic abuse” class endorsing each of the suicidal variables. This further promotes the need to take male experiences of IPV in consideration as well as further supports the above suggested need to reduce fear of stigma and judgement in order to increase help-seeking behaviours among male IPV victims.

With these findings in mind, it is recommended that clinicians and health care workers should conduct routine screenings for potential IPV among those who present in care settings experiencing any suicide related phenomena. These findings also suggest that it may be possible to reduce the global burden of disease related to suicide by preventing IPV.

This research also provides further evidence of the link between IPV experiences and depression with individuals within our sample with a history of IPV having significantly higher overall depression scores, translating to as just over a quarter (27.7%) of those with a history of IPV meeting the diagnostic requirements for ICD-11 depression. This puts victims of IPV at over two-and-a-half times the odds of meeting diagnostic requirements than those without a history of IPV. This thesis would recommend implementing bidirectional screening

for IPV and depression by screening both screening patients presenting with depression for IPV, seeing as it may be a partial potential cause, as well as screening those who present with having experienced IPV for depression as it is a known potential consequence of IPV. This knowledge of the associations between IPV and depression can also assist in treatment planning and implementing trauma-based care.

It is worth highlighting that these results demonstrating the associations between IPV victimisation, social support, loneliness, internalising distress and suicidality, can all be interlinked, having bi-directional, cyclical relationships, acting as a reinforcing network. If one was to view this from a social ecological and trauma informed framework, it can be understood that IPV victimisation is a traumatic experience which can lead to poor mental health outcomes such as PTSD, depression, anxiety, among others, which can lead to suicidality experiences (Nathanson et al., 2012; Sackett & Saunders, 1999; Watson & Bitsika, 2025; Wolford-Clevenger et al., 2016). Furthermore, a key component of IPV victimisation and indeed a key tactic of perpetrators of IPV, is social isolation and an erosion of social contact and support (Tolmie et al., 2024), which can contribute to the subjective feeling of loneliness. As this thesis has demonstrated, loneliness can have a key impact on the relationship between IPV experiences and psychological distress, with higher levels of loneliness potentially exacerbating these negative outcomes. There is a wide array of evidence demonstrating the direct relationship between loneliness and negative mental health, both within this thesis and in existing literature (e.g. Cho et al., 2019; Fiordelli et al., 2020; Wan Mohd Azam et al., 2013), and this relationship has been shown to be bi-directional, with both reinforcing the other, causing a cyclical relationship of worsening symptoms. These experiences are closely linked to an increased risk of suicidality, as those experiencing IPV often feel alone and overwhelmed by their consequential psychological distress (Coker et al., 2002). Thus, loneliness and psychological distress may be key mechanisms by which IPV

experiences contribute to experiences of suicidality. Lastly, research suggests that negative mental health, social isolation and feelings of loneliness may put one at a greater risk of experiencing IPV (Barnes et al., 2022; Capaldi et al., 2012), further highlighting the bi-directional relationship between these key concepts.

Next this thesis explored the contextual and relationship factors that acted as either barriers or facilitators to leaving an abusive relationship for both men and women. Notably, this research provides one of the first accounts of reasons men provided for leaving, or not leaving, an abusive relationship. Having a safe place to go was rated as the key facilitator for leaving an abusive relationship by both men and women while, or on the opposite side, having no safe place to go was also highly rated by men as a key hindering factor. A lack of resources, be it financial resources, housing or other resources, have often been tied to a victim feeling like they are unable to remove themselves from an abusive relationship (e.g. Estrellado & Loh, 2014; Heron et al., 2022). This is a key element of coercive control, with withholding of access to economic resources being a common abuse tactic to exert and maintain control over the victim, making them feel trapped (Hamberger et al., 2017). Thus, it is of the utmost importance to focus on providing a safe place for IPV victims to go to escape the abuse and receive support. With more than half of the men in this study (54%) endorsing not having a safe place to go as a key hindering factor, is it clear that this is a crucial area to focus in on and ensure that there are shelters and safe spaces available and easily accessible for both men and women. Given the scope of the problem, this could reasonably be viewed as an important public health intervention.

Having support from family and friends and having confidence that you would be believed were the next most highly endorsed facilitators for leaving an abusive relationship. This further highlights the importance of social support in relation to IPV as not only can it help to protect against IPV experience and the negative consequences of IPV, as shown

through this thesis and previous works (e.g. Carlson et al., 2002; Costa & Gomes, 2018; Lee et al., 2007), it can also be highly influential in helping a victim escape their abuse.

In relation to hindering factors, feelings of guilt, shame, embarrassment, and powerless to change anything were some of the most endorsed factors by both men and women. Research has previously linked these kinds of feelings with reduced help-seeking behaviours as well as increased negative mental health effects post IPV experience (Evans & Feder, 2016; Heron & Eisma, 2021; Thaggard & Montayre, 2019). Interventions targeting these fears of not being believed as well as awareness campaigns to reduce stigma and shame associated with IPV would be recommended to help address these problems and help victims to have the confidence to leave their abusive relationship. Furthermore, feelings that they needed to keep the family together was also reported as a hindering factor which may stem similarly from feelings of guilt but also from fear of losing custody of a child or due to investments theories which states that greater levels of investment in the relationship are associated with being less likely to leave an abusive relationship (Estrellado & Loh, 2014; Stephens & Melton, 2017). Having a family can act as a future investment in the relationship, making it harder to leave.

Relationship factors such as abusive partner's gender, age at onset of abuse, whether the victim lived with their partner, were married to their partner or had children with their partner, along with disclosure of abuse were also taken into consideration. For women not being married to the abuser was associated with having left the relationship whereas for men it was being of younger age at the onset of abuse and living with their abusive partner. Not being married to the abusive partner facilitating leaving the relationship does fall in line with previously mentioned investment theories however, living together acting as a facilitator for men does not. One would assume living together would involve a greater level of investment in the relationship and yet, for men, it was listed as being a predictive factor for leaving. No

formal hypothesis are put forward in this thesis to explain this finding however, the increased frequency of abuse that may be associated with living with an abusive partner compared to not living with them may play a role. The differences in the factors that are important for men and women demonstrate the need for further study of IPV phenomena to be conducted separately for men and women.

However, one factor which aided both men and women to leave their abusive partner was disclosure of abuse. Disclosure of abuse is a key motivator to leave an abusive relationship as it can help prevent the victim from going back to the partner via encouragement from those they disclosed to (Caridade & Dinis, 2020). Disclosure of abuse can also help to begin the processes necessary to help put protections into place, further helping the victim to escape the abuse (Heron & Eisma, 2021). Clinicians and health care professionals should thus strive to approach IPV interventions with sensitivity and care, encouraging those they suspect may be in an abusive situation to feel safe and comfortable disclosing this information to them, feeling confident that these disclosures will be validated in order to reduce feelings of self-blame (Heron et al., 2022).

Alongside investigating the scope of the problem of IPV, this thesis contributed greatly to research in relation to measurement of IPV and related outcomes. To begin, this research supports the use of the CASR-SF (Ford-Gilboe et al., 2016) to measure IPV within a mixed-gendered sample of adults. Chapter 3 examined the psychometric properties of the CASR-SF within a mixed gendered sample of Irish IPV survivors, finding that a unidimensional latent structure fit the data best with an excellent internal reliability and concurrent validity in this sample. This provided one of the first validation studies of this measure in a sample that included both men and women, with previous studies testing the psychometric properties of the scale on female only samples (Ford-Gilboe et al., 2016).

These results suggest that the CASR-SF may be a reliable and valid measure to use in future studies examining IPV for both men and women. Furthermore, the finding that a unidimensional latent structure fit the data best rather than a three-factor model, due to the extremely high correlations between the physical, sexual and psychological factors of abuse, demonstrates how difficult it is to distinguish between the different forms of abuse and highlights the likelihood of poly-victimisation. This would be important for future studies attempting to investigate the psychosocial consequences of each individual form of IPV.

Chapter 5 provides insights relating to depression, as measured by the IDQ, its measurement and its association with IPV. The psychometric properties of the IDQ (Shevlin et al., 2023), a relatively new measure for measuring symptoms of depression, as described by the ICD-11, were investigated. The CFA results provided support for the IDQ as a measure of ICD-11 symptoms of depression with both the three-factor model, as implied by the CDDR (CDDR: WHO, 2024), and the unidimensional model, as implied by the Diagnostic and Statistical Manual of Mental disorders (DSM) (American Psychiatric Association [APA], 2022), fitting the data reasonably well across most indices of model fit. However, in direct comparisons, we found that the three-factor model fit the data significantly better, consistent with preliminary work suggesting that the ICD-11 symptoms of depression may be most accurately described by three correlated sets of symptoms (Hyland et al., under review). These results are important for any future research conducted using the IDQ to examine symptoms of depression as described by the ICD-11 as it demonstrates that the CDDR recommendation of a three-factor model for diagnosis may be more accurate than the DSM's unidimensional recommendation. This also has interesting implications for diagnostic purposes as although the CDDR clearly outlines the three distinct symptom clusters of 'affective', 'cognitive-behavioural' and 'neurovegetative' symptoms, the diagnostic guidelines still dictate a one-dimensional model of depression with the proposed

diagnostic algorithm being the presence of at least five of nine symptoms with at least one being depressed mood/and or loss of interest or pleasure (APA, 2022).

Once the latent structure of the IDQ was established, the measurement invariance testing was then conducted. Survivors of IPV are often regarded to be more likely to suffer from depression, among other disorders (e.g., Coker et al., 2002; Haber, 1985; Gerber et al., 2007), however, that conclusion rests on the (previously untested) assumption that depression manifests the same way in those who have experienced IPV and those who haven't, and it can therefore be measured in the same way. Chapter 5's measurement invariance results provide the necessary evidence that depression does indeed manifest itself in the same way, and thus can be measured in the same way, for both those with and those without a history of IPV. These results are very encouraging as they provide a degree of confidence in the validity of previous research which found that victims of IPV had higher levels of depression (Chandan et al., 2020; Coker et al., 2002; Lagdon et al., 2014; Mechanic et al., 2008 & Nathanson et al., 2012; Watson & Bitsika, 2025). One could suspect that these findings may well generalise to other related disorders such as GAD or PTSD, however, specific tests investigating this would be needed and so future studies should strive to assess for measurement invariance of these disorders across those with and without IPV experiences before these kinds of conclusions could be confidently drawn.

6.4 Implications for Policy and Practice

The findings of this thesis indicate a need for change at a government policy level as well as has implications for clinical practice. These needs for action primarily focus on issues relating to public awareness of IPV and the need for a reduction of bias and stigma, especially around male victims of IPV, and those relating to available resources and services for victims of IPV.

Public awareness, stigma and gendered bias have been highlighted throughout this thesis as being key factors involved in a victim's likelihood of leaving an abusive relationship and seeking help. Chapter 4 in particular casts a light on how feelings of guilt, shame and embarrassment were the main hindering factors preventing both male and female victims from leaving their abusive partner. Both this research and previous research suggests that these feelings often stem from fear of stigmatisation, feelings of self-blame and fear of public and legal biases. This has been shown to be particularly true for men (O'Connor, 2020; Tsui et al., 2010). These fears significantly reduce chances of disclosure, a vital process for leaving an abusive relationship as disclosing abuse to another person can help to prevent an abused person from changing their mind and returning to, or staying with, the abusive partner (Caridade & Dinis, 2020). Thus, it is imperative to create interventions to try to reduce the bias and stigma around IPV victimisation to allow those experiencing IPV to feel comfortable disclosing this information and ensure that these disclosures are validated (Heron et al., 2022). In order to do this, policymakers should work with local and international organisations such as Women's Aid and Men's aid Ireland, in order to launch public awareness campaigns, highlighting the prevalence of IPV and the addressing the misconceptions that only women can be victims of IPV, demonstrating that male victims are almost as common with findings such as one-in-four men in Ireland are victims of IPV, compared to one-in-three women.

Furthermore, given that IPV has been shown to commonly begin in adolescence to early adulthood (WHO, 2021), along with the findings that being younger in age puts one at an elevated risk of experiencing IPV, it is important to bring greater awareness of IPV to the younger generations (e.g. Capaldi et al., 2012; Spencer et al., 2019; Stith et al., 2004). Intimate relationships, even those classified as "adult intimate relationships", are typically considered to begin around 15-16 years old (Government of Canada, 2022; WHO, 2021),

with even the measurement tools for IPV, such as the CASR-SF, specifying romantic relationships since the age of 16 (Ford-Gilboe et al., 2016). A CDC report found that “about 16 million women and 11 million men” experienced IPV for the first time before the age of 18 (Leemis et al., 2022) yet despite this, most awareness campaigns are geared towards adults rather than a younger audience. A pragmatic and effective way to raise awareness of IPV within these younger, at-risk populations, and potentially protect them, can be found via school education systems. Children and young adolescences are often taught about relationships and sexuality within dedicated school programmes. In Ireland, this is done via the compulsory Relationships and Sexuality Education (RSE) programmes at both primary and secondary level as well as being a part of the Social, Personal and Health Education (SPHE) subject. Within these programmes, children and adolescents learn about sexual health, sexual orientation, gender, relationships and consent (Keating et al., 2018). However, education around IPV is underdeveloped within these curriculums. While there is some information around consent and setting boundaries in a relationship (Keating et al., 2018), more education around IPV, its signs, risk factors and outcomes, could potentially help protect these students against future IPV victimisation.

On the other hand, in Canada, there is no central curriculum-based sex education which is coordinated at a national level (Statistics Canada, 2024). Instead, sex education, known here as sexual and reproductive health (SRH), curricula are organised by individual provinces and territories (Maradiya et al., 2025). Reports show that there are heavy inconsistencies in the curriculum across the provinces and territories with little agreement on what constitutes as essential material (Action Canada for Sexual Health & Rights, 2020; Robinson et al., 2019). A lot of the SRH curricula seem to be deeply rooted in health educations, failing to address key areas such as gender identity, sexual orientation and pleasure (Maradiya et al., 2025). There is little evidence to suggest that IPV is covered

extensively within any of these programmes. It would be recommended that more cohesive guidelines for SRH curriculums be set out at a federal level and that these should include information around IPV to help better inform young people on the prevalence, warnings signs and consequences of IPV. Students in both Ireland and Canada should also be properly informed of all the existing supports available to them and the pathways for safe disclosure of abuse. Raising awareness of IPV for both males and females at this young age could also have important implications for reducing stigma and the gender bias around IPV.

However, stigma is not just found within the public view, but also within health care settings. Clinicians and health care providers are not immune to these biases (Follingstad et al., 2004; O'Connor, 2020). Research conducted to assess gender bias in psychologists in relation to IPV as it relates to men and women, found that when given identical vignettes of an IPV situation, contextual factors were only taken into consideration and assessed when the described abuser was female (Follingstad et al., 2004). As well as this, identical acts of abuse were perceived to be more severe and pathological when the abuser was a male compared to a female. This research highlighted the unconscious bias that exists within health care settings and so it is of great importance to address these before working with male survivors of IPV. Implementing education and training around unconscious biases relating to IPV may be advisable when training-in health care workers and clinicians who may be working with victims of IPV. Evidence suggests that training in these areas can be highly effective in reducing bias and stigma (Atewologun et al., 2018), which in turn should help to create an environment in which men, as well as women, feel that they will be believed, without fear of judgement and stigma.

A more gender balanced approach to IPV would also be beneficial in relation to resources and services available to victims of IPV. This study has found that having a safe place to go was endorsed by both women and men as being a key factor in their decision to

leave their abuser. This demonstrates that providing a safe place for abused persons to go and to receive support in their transition out of the abusive relationship is of the utmost importance. However, support services are often poorly advertised and poorly funded, particularly for male victims (O'Connor, 2020). Policy makers need to dedicate more time, support, resources and funding to help set up more shelters and more readily accessible clinics and counselling services for both male and female survivors of IPV, in order to allow victims to have a better chance at escaping their abusive relationships and seeking the help they need to reduce the negative consequences associated with their experiences.

6.5 Strengths and Limitations

Overall, this thesis contributed greatly to the area of IPV research, addressing some clear gaps in the literature such as the experiences of male victims as well as the experiences of IPV in Ireland. As stated previously, male experiences of IPV are sorely underrepresented in IPV research and this thesis provided some of the most in-dept analysis of both male and female experiences of IPV, adding a gender balanced analysis of IPV experiences to the limited existing research. By acknowledging male IPV victims alongside female victims, this thesis can help to advocate for and bring attention to the experiences of all IPV victims in order to better understand this social phenomenon and reduce the stigma surrounding male victims.

Furthermore, this thesis finds a strength in its in-dept investigation of the scope of the problem of IPV in Ireland, a country which had its last comprehensive national study on IPV conducted two decades ago (Watson & Parsons, 2005). Providing this up-to-date information on the prevalence, patterns of experiences, and associated risk factors and psycho-social consequences of IPV in Ireland for both men and women has led to various important intervention recommendations which can hopefully be implemented to reduce this public health issue. Additionally, this thesis provided crucial information regarding the factors

involved in a victim's decision to either stay or leave an abusive relationship, information that was previously understudied in the male population. This information can be crucial for clinicians and policy makers when planning and designing effective interventions to help encourage and provide opportunity for those experiencing IPV to leave their abusive relationship.

Finally, this thesis provided a much-needed improved degree of confidence in IPV measurement both by establishing the psychometric properties of the CASR-SF and by demonstrating that symptoms of depression, as measured by the ICD-11, can be measured equally among those with and without IPV experience. Findings which will prove useful in future research hoping to investigate IPV alongside its associations with symptoms of depression, or similarly related phenomena such as PTSD or anxiety.

The data used within this thesis, the samples and the means by which they were collected acted as both a strength and a limitation of this thesis. This thesis utilised multiple large scale, nationally representative samples of adults living in both Ireland and Ontario, which went through rigorous testing to ensure it was representative of the population across a number of parameters as well as implemented multiple attention checks and quality control tests throughout. These large samples allow these findings to be generalisable with a high degree of confidence to a wider population, despite the non-probability sampling methods used. However, while these non-probability-based quota sampling methods that were used created a sample that was representative of the population parameters across a range of demographic variables in both Ireland (Chapter 2 and 3) and Ontario, Canada (Chapter 4 and 5), the use of non-probability sampling methods does raise questions about the generalisability of the findings to the entire adult population. In addition to this, the generalisability of the Ontarian data is further called into question as Ontario is an affluent, North American province which has been found to have one of the lowest provincial rates of

IPV in Canada with only 251 victims of IPV per 100,000 (Statistics Canada, 2023). Due to this, it is unknown how well these data would generalise to the entire population of Canada, particularly less prosperous areas, especially with SES of an area being linked to IPV rates (Beyer et al., 2015).

Furthermore, all the data used as part of this thesis were cross-sectional in nature. This precludes any causal or predictive inferences from being able to be made such as in relation to the relationship between IPV and mental health or suicidality outcomes, whether loneliness mediated the effect IPV on internalizing psychopathology, or whether internalizing psychopathology preceded the incidence(s) of IPV, and/or the relationship between IPV experiences and depression as measured by the ICD-11.

These data were gathered via anonymous online self-report measures and analysed using purely quantitative research methods. Anonymous self-report measures have the benefit of providing confidentiality to respondents which may allow them to discuss their experiences of violence more freely than face-to-face methods, without feeling as though they are directly disclosing their experiences (Cullen, 2022). This is likely why anonymous surveys often find some of the highest rates of IPV with face-to-face interviews often finding the lowest prevalence rates (Cullen, 2022; Follingstad & Rogers, 2013). This may in turn lead to more honest responses from participants. However, IPV is a complicated and nuanced topic and thus it is unlikely that self-report survey data would be able to fully capture all the ways that IPV can manifest as self-report does not always have the best record for measuring sensitive topics (Blair et al., 2020). As such, a combination of self-report measures alongside face-to-face interviews, more open-ended questions, and the inclusion of police and crime reports may be the best way to study IPV and may have yielded some different or new results compared to those found in this thesis.

The context in which the Irish data were collected may also be considered to be a limitation of this thesis. These data were collected during the COVID-19 period having been gathered from December 2 to 22 2020, approximately nine months after the initial lockdown period in Ireland. This was a period where nearly all public health restriction had been lifted. The fact that these data were collect during the COVID-19 pandemic may have influences our results in relation to prevalence rates and variables measuring social support, social contact and loneliness. There is evidence to suggest that IPV rates increased during the COVID-19 pandemic (Peitzmeier et al., 2022), which may have been a contributing factor to our finding that female IPV victimisation rates in Ireland had increased with the two-decade period between our study and the last previous assessment in 2005 (rate increased from 29% to 38%). However, as mentioned in Chapter 2, there is evidence to suggest that the collection of our data during COVID-19 is not sole cause for this increase. Although the social distancing measures enacted during this time period may have affected measures surround social contact, loneliness and social support (Pietrabissa & Simpson, 2020), all of which had been found to be highly important in regards to IPV victimisation and its associated influence on internalizing distress. However, again, as previously addressed, these data were gathered at a time when people were free to socialise and go about their lives as normal again, with few public health restrictions in place, and so it is theorised that this should not have had too great of an effect on our results of this thesis.

Additionally, only exposure to lifetime IPV experiences were examined within this PhD and not the timeframe of IPV, the frequency or severity. With the measurement of lifetime exposure to IPV, it was not possible to establish if participants were currently experiencing IPV or when they had experienced it. Furthermore, investigating severity and frequency of the IPV experienced would have been beneficial when examining the negative mental health outcomes associated with IPV as these factors would have a great impact on

subsequent mental health (Dillion et al., 2012). Future work should endeavour to take this into consideration when conducting their research and analysis.

Finally, the CASR-SF (Ford-Gilboe et al., 2016) is limited in its ability to ascertain elements of controlling patterns or motivations for IPV, nor does it take into account the context in which the abusive behaviours are taking place. Instead, the CASR-SF is only capable of measuring experiences of different forms of IPV, while providing the opportunity to gather some information regarding the frequency of these behaviours when used in full. With coercive control and motivations around IPV being a central area in IPV research, it is recommended for future research to include measures of coercive control such as the Checklist of Controlling Behaviours (CCB) (Lehmann et al., 2012), alongside measures of IPV such as the CASR-SF, to get a more thorough picture of the IPV experiences and the dynamics taking place.

6.6 Future directions

Throughout this thesis, recommendations have been left for the directions of future research. To begin, one of the key recommendations would be to prioritise gathering nationally representative, longitudinal datasets of both male and female experiences of IPV. This would allow conclusions to be drawn about the causality and the casual pathways of the relationships between associated risk factors for IPV victimisation, as well as the psychosocial consequences of IPV. This would allow for a more comprehensive analysis on the mental health effects of IPV and whether any mediation effects truly exist. Furthermore, researchers should focus on having an internationally extensive reach, preferably aiming for a global study, when gathering these data, in order to finally provide information on both male and female global prevalence rates, as currently no such data exists for men. Larger, more culturally varied samples would also be advantageous for assessing the latent structure of

both the CASR-SF and the IDQ, allowing for more confidence in the scales ability to accurately measure for IPV and symptoms of depression across a diverse sample range.

Improvements to the measurement of IPV would be recommended to future researchers. Future studies should strive to ensure that not only are lifetime experiences of IPV measured, but also that the timeframe of when the IPV occurred, the frequency and the severity are also measured. Knowledge around when the individual experienced IPV, past or present, would be beneficial for testing if depression, or other mental health problems, can be measured equivalently for those currently experiencing IPV, alongside allowing researchers to be to discern whether factors such as subjective loneliness preceded internalizing symptoms, or indeed IPV experiences. Additionally, the frequency and severity of the IPV experience have previously been thought to have a great impact on the consequences associated with IPV experience and thus this information would be of great benefit to future researchers.

Finally, a more comprehensive analysis of risk factors and negative mental health effects associated with IPV is recommended. This thesis focuses on a wide range of risk factors for IPV victimisation, however, they were mostly demographical in nature. From Dutton's nested ecological model (1995) we know that factors within the microsystem such as previous IPV experience, history of child abuse and witnessing IPV within the family all play major roles in the likelihood of future IPV experiences (Kuijpers et al., 2012; Spencer et al., 2019). Thus, in future it would be important to include these factors in further studies examining who in the population are at risk of IPV victimisation. Furthermore, more comprehensive measures of identity such as those surrounding race, ethnicity, culture, socioeconomic class and sexual orientation would be important to include in future research. Investigating these factors along with gender would allow for an examination of intersectionality and its relationship with IPV victimisation. Including these factors in future

analysis would facilitate a deeper understanding and recognition of how IPV vulnerability and unique IPV experiences can be shaped by the way in which these multiple, intersecting social identities interact with broader social structures and systems of oppression and inequality (Cardenas, 2023; Crenshaw, 1989). Research suggests that those from diverse backgrounds and of different sexual orientations may experience increased risk of IPV victimisation, as well as face additional difficulties or barriers to reporting IPV, due to overlapping oppressions (Cardenas, 2023; Sokoloff & Dupont, 2005). Thus, the inclusion of these variables is essential for future research to be able to capture the diverse ways these different social groups can experience IPV.

Following on from this, increased measures around sexual orientation would also be recommended for studies investigating risks factors and associated psychosocial consequences, given the research suggesting that the prevalence rates of IPV within LGBTQ+ relationships are comparable to or even higher than in heterosexual relationships (Langenderfer-Magruder et al., 2016; Whitfield et al., 2021). Future studies should ensure to account for sexual orientation in order to provide a more thorough investigation of the scope of the problem of IPV as well as crucial information on the IPV experiences of those within the LGBTQ+ community.

In relation to mental health, this thesis mostly only measures mental health problems relating to internalizing distress such as symptoms of depression, anxiety, somatic symptoms and suicidal ideation, with the only measure of externalizing distress included being those around suicidal attempt and non-suicidal self-injury investigated in Chapter 2. A further examination of the link between IPV and externalizing distress variables, such as anti-social behaviour, alcohol misuse or addiction problems, alongside measures of psychosis, such as hallucinations, delusions and paranoia, and the factors that may mediate this relationship, would be greatly beneficial.

6.7 Conclusion

This thesis clearly demonstrates that IPV is a complex, major public health issue, providing up-to-date information relating to the prevalence, risk factors and psychosocial consequences of IPV victimisation. Using nationally representative data collected in both Ireland and Ontario, Canada, this thesis shows that IPV is a pervasive issue across nations affecting almost one-third (32.1%) of the Irish adult population and approximately a quarter (25.6%) of the Ontarian adult population. This thesis adds to a limited body of research which examines both male and female IPV experiences, allowing for gender balanced analysis to take place which in turn will lead to the development of more effective interventions for both genders. The risk factors associated with experiencing IPV for both men and women have been identified within this research alongside IPV experiences association with mental health outcomes such as suicidal variables, internalizing distress and depression, and the factors involved in a victim's decision to either stay with or leave their abuser. Finally, this thesis contributes important work on the measurement of IPV, as well as depression, providing evidence to support the psychometric properties of the CASR-SF and the IDQ, alongside providing evidence that depression symptoms can be measured equivalently between those with and without a history of IPV. Overall, this thesis provides an extensive, comprehensive analysis of a range of factors relating to IPV victimisation which can be used to help inform government policies relating to IPV as well as aid organisations and clinicians who are responsible for helping victims of IPV.

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Appendices

Appendix A: The Composite Abuse Scale Revised- Short Form (CASR-SF)

Composite Abuse Scale Revised – Short Form (CAS_R-SF)

INSTRUCTIONS: These questions ask about your experiences in adult intimate relationships. By adult intimate relationship we mean a current or former husband, partner or boyfriend/girlfriend for longer than one month.

1. Have you ever been in an adult intimate relationship? (Since you were 16 years of age)
 - a) Yes
 - b) No -- Skip out of remaining questions

2. Are you currently in a relationship?
 - a) Yes
 - b) No -- Go to Q4

3. Are you currently afraid of your partner?
 - a) Yes
 - b) No

4. Have you ever been afraid of any partner?
 - a) Yes
 - b) No

We would like to know if you experienced any of the actions listed below from any current or former partner or partners. If it ever happened to you, please tell us *how often* it usually happened in the past 12 months.

<i>My partner(s):</i>	Has this <u>ever</u> happened to you?		IF YES, how often did it happen in the past 12 months?					
Blamed me for causing their violent behavior	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Shook, pushed, grabbed or threw me	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Tried to convince my family, children or friends that I am crazy or tried to turn them against me	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily

Used or threatened to use a knife or gun or other weapon to harm me	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Made me perform sex acts that I did not want to perform	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Followed me or hung around outside my home or work	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Threatened to harm or kill me or someone close to me	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Choked me	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Forced or tried to force me to have sex	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Harassed me by phone, text, email or using social media	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Told me I was crazy, stupid or not good enough	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Hit me with a fist or object, kicked or bit me	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Kept me from seeing or talking to my family or friends	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Confined or locked me in a room or other space	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily
Kept me from having access to a job, money or financial resources	No	Yes	Not in the past 12 months	Once	A few times	Monthly	Weekly	Daily/ almost daily

Appendix B: The International Depression Questionnaire (IDQ)

THE INTERNATIONAL DEPRESSION QUESTIONNAIRE (IDQ)

OVERVIEW: The *International Depression Questionnaire* (IDQ) is a self-report measure of ICD-11 Single Episode Depressive Disorder (ICD-11 diagnostic code 6A70). It can be used to generate severity scores and to identify cases meeting diagnostic criteria. The severity scoring method simply involves summing the scores of the 9 IDQ items producing a possible range of scores from 0 to 36. No cut-off scores are proposed, as ‘caseness’ is defined by applying the ICD-11 diagnostic algorithm.

DIAGNOSTIC ALGORITHM: The ICD-11 states that Depressive Episode requires “*The concurrent presence of at least five of the ... characteristic symptoms occurring most of the day, nearly every day during a period lasting at least 2 weeks. At least one symptom from the Affective cluster must be present*”. This equates to endorsing (i.e., scoring 3 or 4 on the Likert scale) a total of five or more of the nine items, with at least one of the five being item 1 or 2 (or both) from the IDQ. If these conditions are met, *and* the functional impairment question is answered ‘Yes’, then the diagnostic requirements for ICD-11 Depressive Episode have been met. SPSS syntax for executing the diagnostic algorithm is provided at the end of this document.

The following reference should be used:

Shevlin, M., Hyland, P., Butter, S., McBride, O., Hartman, T. K., Karatzias, T., & Bentall, R. P. (2022). The development and initial validation of self-report measures of ICD-11 depressive episode and generalized anxiety disorder: The International Depression Questionnaire (IDQ) and the International Anxiety Questionnaire (IAQ). *Journal of Clinical Psychology*, 1– 17. <https://doi.org/10.1002/jclp.23446>

This paper is open-access and available at:

<https://onlinelibrary.wiley.com/share/P6FY45IM5W8YQ4T3UYSY?target=10.1002/jclp.23446>

Over the last two weeks, how frequently have you had the following feelings, thoughts, and behaviours? Please circle the appropriate number to indicate your response.

Never	Only a few days	Half the days	Most days	Every day
0	1	2	3	4

1. Felt down or depressed <i>for most of the day</i> ?	0	1	2	3	4
2. Experienced less interest or pleasure from normal activities <i>for most of the day</i> ?	0	1	2	3	4
3. Have had difficulty concentrating?	0	1	2	3	4
4. Had feelings of worthlessness or guilt?	0	1	2	3	4
5. Felt hopeless?	0	1	2	3	4
6. Had recurrent thoughts of death or suicide?	0	1	2	3	4
7. Have had changes in appetite or sleep?	0	1	2	3	4
8. Moved slower or felt more restless?	0	1	2	3	4
9. Experienced reduced energy or fatigue?	0	1	2	3	4

Have these experiences caused problems in personal, family, social, educational, occupational, Or other important areas of your life? Yes Y No Y

SPSS SCORING: If the IDQ items are labelled Dep_1 to Dep_9 and the functional impairment item is labelled 'Dep_impair', the following syntax will produce a variable called 'ICD_DEP_dx' with values of 1 indicating meeting diagnostic criteria and 0 indicating not meeting diagnostic criteria.

```
IF (Dep_1 > 2) or (Dep_2 > 2) CoreDep_dx=1.
EXECUTE.
```

```
COUNT Count_Dep =
Dep_1,
Dep_2,
Dep_3,
Dep_4,
Dep_5,
Dep_6,
Dep_7,
Dep_8,
Dep_9 (3,4).
EXECUTE.
```

```
IF (CoreDep_dx =1) and (Count_Dep >= 5) and (Dep_impair =1) ICD_DEP_dx=1.
EXECUTE.
```

```
RECODE ICD_DEP_dx (MISSING=0).
EXECUTE.
```