Assessing the mental health impact of interpersonal poly-victimization across the life-course in a male population.

Carol Rhonda Burns BSc(Hons) MRes AFHEA MBPsS
Faculty of Life and Health Sciences
Ulster University

Submitted for the degree of Doctorate of Philosophy
January 2019

I confirm that the word count of this thesis is less than 100,000 words excluding the title page, contents, acknowledgements, summary of abstract, abbreviations, footnotes, diagrams, maps, illustrations, tables, appendices, and references or bibliography.

To Martin,
Christopher, Daniel, Lauren, Megan, Caoimhe, Ciara
and Amberleigh
with love.

Contents

Acknowledgements

First, I would like to thank my primary supervisor Prof Cherie Armour. Over the course of my PhD she has offered me invaluable advice and guidance. She has continually supported me, been enthusiastic and shown immense patience. She has actively encouraged me to pursue my own research interests and provided numerous opportunities for me to develop collaborations both within the scope of my PhD and beyond. She has introduced me to many academics across the UK and Ireland, Europe and the USA. I would also like to thank Cherie for the multiple opportunities to develop so many new skills and revisit old skills from a past life. She encouraged me to become involved in the RESPECT Network in a leadership role where I learned many new skills and became more self-confident and self-assured.

I would also like to thank Cherie for the opportunity to support students on the MSc Health Psychology, and Dr Liz Simpson for her encouragement within this role. I am also grateful to Dr Niamh Kennedy for asking me to remain in post when she took over as module co-ordinator. I have learned so many skills in this post.

In addition, I would like to thank my second supervisor, Dr Orla McBride for the endless proof reading, support, guidance and patience. Orla helped me hone my writing skills.

I would also like to thank the department of Stratified Medicine, and the school of Psychology, particularly Prof Melanie Giles for the lecturing opportunities. Thanks also to Liz Millar and the School of Psychology staff for the support I have received throughout my time at Ulster. I would also like to give my gratitude to Dr Chris McConville, Dr Frances McLernon and Dr Gillian Shorter, for the support and friendly advice along the way.

I gained a second family during my postgraduate time which included my fellow PhD students Shelley, Jana and Martin, we shared office space five days a week, and spent time together at many conferences. We made some wonderful memories, shared the good and the bad and supported each other every step of the way. I would like to thank them for the daily laughs. It has been an honour and a privilege to work beside you and to call you my friends. The post docs from the Northern Ireland Veterans Project have also been a great source of support. I would like to thank Emma for the 'craic' and her ability to make me smile no matter what, Margaret for the endless advice and Bethany for the listening ear, the guidance and a safe place to open up and talk.

I would like to thank my husband Martin, his encouragement when things were tough, his support when I felt self-doubt and his love, unselfishness, belief and patience that have made all of this possible; he is my rock and my best friend. Finally, I would like to thank my precious children; Chris, Dan, Lauren, Megan, Caoimhe and Ciara (yes, six of them!). I love each one of you more than you will ever know, thank you for making Mummy a cup of tea; thank you for the occasional dinner that you made, that helped keep body and soul together; thank you for the hugs, they make everything worthwhile. I am forever grateful for their understanding when mummy was busy. To my beautiful grand-daughter Amberleigh, Granny loves her spider monkey x.

THIS THESIS IS FOR MY CHILDREN -
REMEMBER ANYTHING IS POSSIBLE

Thesis Abstract

A systemic conclusion within the extant literature is that victimization and poly-victimization leads to adverse psychological outcomes. A large body of literature exists as it pertains to the association between victimisation and mental health in studies utilising samples of childhood victims, female victims, and mixed samples of male and female victims; less research exists as it relates to male victims of interpersonal violence and abuse. The aims of this thesis were therefore to 1.) identify profiles of interpersonal poly-victimizations in an exclusively male sample (Chapter 4); 2.) to examine the differential predictability of these profiles on negative mental health outcomes (Chapter 5). Further, Chapter 6 assessed 3.) the role of perceived physical health on the relationship between typology of interpersonal poly-victimization and psychopathology, while Chapter 7 examined 4.) the impact of perceived interpersonal social support on the relationship between typology of interpersonal poly-victimization and psychopathology. A final line of enquiry involved a pioneering analysis strategy, the Meaning Extraction Method (MEM) to 5.) evaluate the natural language used by male victims to express their thoughts, feelings and emotions in relation to their experiences (Chapter 8).

Using Latent Variable Modelling techniques applied to data from 15,862 adult males from Wave 3 of the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), aims 1 to 4 were addressed. Latent Class Analysis exposed a 3-class solution as optimal. Logistic Regression was subsequently utilized to establish risk across mental health disorders.

As expected, victimisation profiles showed elevated odds ratios for the presence of mental health disorders across all domains examined, suggesting that multiple life-course victimisation typologies exist, and that victimization is strongly associated with psychopathology. Mediation analysis showed that for male victims, physical health is an important factor in their psychological health and that perceived interpersonal social support has a mediating impact and further, moderates the relationship between participants categorised as childhood poly-victimised in cases of Drug Use Disorders, Depressive Disorders and Personality Disorders. The 5th aim of this thesis was addressed with a pilot study utilising MEM analysis in Chapter 8, however, data collection fell short of the standards needed for a MEM analysis. Consequently, no MEM analysis could be completed however, valuable information was gained and taken forward into the results, discussion and implications of this chapter. The minimal data gathered in this study showed promising results as it concurred with previous findings. Suggestions for improvements in the data collection strategy are discussed. Several notable findings from the thesis are discussed in an overview in Chapter 9.

Abbreviations

ACE	Adverse Childhood Experience
ADHD	Attention Deficit Hyperactivity Disorder
AIC	Akaike Information Criterion
AISSA	Applied Social Sciences Index and Abstracts
APA	American Psychological Association
APMS	Adult Psychiatric Morbidity Survey
AUDADIS-5	Alcohol Use Disorder and Associated Interview Schedule 5
BIC	Bayesian Information Criterion
CAPI	computer assisted personal interview
CDC	Centers for Disease Control and Prevention
CPA	Childhood Physical Abuse
CSA	Childhood Sexual Abuse
DOJ	Department of Justice
DSM	Diagnostic and Statistical Manual of Mental Disorders
EST	Ecological Systems Theory
FBI	Federal Bureau of Investigation
GAD	General Anxiety Disorder
IBSS	International Bibliography of the Social Sciences
IPV	Intimate Partner Violence
ISEL-12	Interpersonal Support Evaluation List-12
ISS	Interpersonal Social Support
LCA	Latent Class Analysis
LGBT	Lesbian, Gay, Bisexual & Transgender
LPA	Latent Profile Analysis
MeSH	Medical Subject Headings
MLR	Maximum Likelihood Robust
NCVS	National Crime Victim Survey
NESARC	National Epidemiologic Survey on Alcohol and Related Conditions
NIAAA	National Institute of Alcohol Abuse and Alcoholism
NIH	National Institute of Health
NMA	Normative Male Alexithymia
NSSI	Non-Suicidal Self-Injury
PILOTS	Published International Literature on Traumatic Stress
PSUs	Primary Sampling Units
PTSD	Post-Traumatic Stress Disorder
SES	Socio-economic Status
SF12-V2	Physical and Mental Functioning Summary Scales: Version 2
SLT	Social Learning Theory
SPCC	Society for the Positive Care of Children
SSABIC	Sample Size Adjusted Bayesian Information Criterion
SSUs	Secondary Sampling Units
TAS	Toronto Alexithymia Scale

UCR	Uniform Crime Reporting Program
UNICEF	United Nations Children's Fund
USA	United States of America
VAWA	Violence Against Women Act
WDVC	Witnessing Domestic Violence in Childhood
WHO	World Health Organisation
WSV	World Society of Victimology

Declaration

"I hereby declare that with effect from the date on which this thesis is deposited in the Library of the University of Ulster, I permit the Librarian of the University to allow the thesis to be copied in whole or in part without reference to me on the understanding that such authority applies to the provision of single copies made for study purposes or for inclusion within the stock of another library.
This restriction does not apply to the British Library Thesis Service (which is permitted to copy the thesis on demand for loan or sale under the terms of a separate agreement) nor to the copying or publication of the title and abstract of the thesis.

IT IS A CONDITION OF USE OF THIS THESIS THAT ANYONE WHO CONSULTS IT MUST RECOGNISE THAT THE COPYRIGHT RESTS WITH THE AUTHOR AND THAT NO QUOTATION FROM THE THESIS AND NO INFORMATION DERIVED FROM IT MAY BE PUBLISHED UNLESS THE SOURCE IS PROPERLY ACKNOWLEDGED"

Carol Rhonda Buns January 2019

List of Tables

List of Figures

Publications and Conference Presentations

PUBLICATIONS AND CONFERENCE PRESENTATIONS ARISING FROM MATERIAL IN THIS THESIS IN PART OR IN WHOLE

***Burns, CR.,** Charack, R., Fletcher, S., Armour, C. Assessing the mental Health Impact of Male Poly-victimization Across the Life-course. Administrative Data Research Network International Conference, Queens University Belfast, 21-22 June 2018.

“Men are disturbed not by things, but by the view which they take of things”

Epictetus

Chapter 1:

An introduction to Interpersonal Poly-victimization and Negative Mental Health outcomes in men.

Section 1.1: Victimisation

This chapter will introduce the topic of the current thesis: Interpersonal Poly-victimization and Negative Mental Health outcomes in men. It is divided into four sections for ease of navigation:

- Section 1.1 deals with the topic of victimisation and poly-victimization by outlining definitions of the main concepts and discussing a brief political history of victimisation in men including the development of victim's rights organisations. Consideration is then given to the stereotypes that shape social expectations of men;
- Section 1.2, details issues surrounding the measurement techniques used, and prevalence of victimisation experiences in the USA, including official state records and self-report questionnaires. Further, it will outline the definitions, prevalence and risk factors associated with common interpersonal victimisation experiences both in childhood, and across the life-course. Finally, this section of the introduction will discuss the cumulative impact and negative mental health outcomes associated with these experiences;
- Section 1.3 outlines and critiques the most salient theoretical perspectives that may aid our understanding of how victimisation experiences impact those who experience them and why; and
- Section 1.4 concludes with a summation of the main and peripheral aims of this thesis, the rational for this research and an outline of the research questions this thesis will attempt to answer.

1.1.1 Introduction

The word trauma is translated from the Greek noun *traumatos* meaning wound (Dominik, 2002), and trauma and traumatic experiences are an everyday feature of a human life. At some point across the life span, almost every person will experience a traumatic event (Friedman, Keane & Resick, 2007). This could be a car accident, the death of a loved one or being the victim of a crime. However, traumatic experiences can include several types of event, for example, experiences of war are very different from involvement in a road traffic accident. These different types of trauma have different attributes and can fundamentally differ in how they are experienced both physically and psychologically (Sayer et al., 2008; Mayou, Ehlers & Hobbs, 2000).

1.1.2 Interpersonal victimisation

Victimisation experiences are a specific type of traumatic experience that are targeted, interpersonal, abusive and often chronic in nature and further, many go un-detected (Crastnopol, 2015). They have a very personal and often intimate nature and differ from non-interpersonal traumas. In childhood, these are often referred to Adverse Childhood Experiences (ACEs) and include childhood physical, sexual and psychological abuse, neglect and the witnessing of domestic violence (Felitti et al., 1998).

In adolescence, dating violence, bullying and assault are prevalent (Foshee et al., 2014), with adulthood intimate partner violence (IPV), assault, stalking and rape also

being interpersonal trauma experiences (Holt, 2013; Hall, Critcher, Jefferson, Clarke & Roberts, 2013; Griffin, 2015). In old age, experiences can include elder abuse and institutional abuse (Burnes et al., 2015).

Of note, recurrent small daily psychological traumas can be as impactful as more salient incidents such as an assault. Examples would be when a parent persistently tells a child they are stupid, or calls them names, or when one romantic partner exerts coercive control over the other including disparaging, patronising or condescending comments intended to belittle a person. Crastnopol (2015) discussed the psychological impact of persistent micro-trauma and how these foster negative emotions stating; "*a series of smaller psychic excitations can accumulate to have a large distorting effect on the self*" (p.6).

The World Health Organisation (WHO, 2016), divide violent acts into three categories by perpetrator "*self-directed violence; interpersonal violence; and collective violence*" (p.4). The focus of this thesis will be on the victims of interpersonal violence and abuse. The WHO also summarises interpersonal violence in two general categories; 1.) family and intimate partner violence, 2.) community violence. The family and IPV category includes relationship violence occurring mostly at home, for example childhood abuse and victimisation by a romantic partner. Community violence is described as that between unrelated persons occurring outside the home, for example assault, mugging or stranger rape.

1.1.3 Interpersonal poly-victimization and re-victimisation

For some, the experience of a victimisation is not an isolated occurrence. Indeed, Finkelhor, Turner, Hamby and Ormrod (2011), stated that where one victimisation is experienced, multiple victimisation experiences will be present. This is termed poly-victimization, and while Finklehor and his colleagues were referring to ACEs, such as the experience of abuse and neglect, criminal victimisations and violence in childhood, poly-victimization has also been conceptualised as being experienced at any stage or across multiple stages of the life-course (Ramsey-Klawsnik & Heisler, 2014). For example, Cavanagh, Martins, Petras and Campbell (2013), showed experience of poly-victimization in adult females who suffered IPV where they endorsed experience of multiple forms of intimate partner violence and abuse.

Re-victimisation is another term used to mean the experience of victimisation subsequent to the first experience. Victimisation experiences can be concurrent or sequential and can have a devastating impact on the victim. Re-victimisation is defined as exposure to the same or similar type of victimisation experience or, exposure to a different type of victimisation at some later time in their life (Scott-Storey, 2011). Indeed, victims of childhood sexual abuse (CSA) have been found to be at increased risk of exposure to adult sexual assault and rape (Ports, Ford & Merrick, 2016). For the purpose of this thesis, the term poly-victimization will be used to reference all multiple victimisation experiences including poly-victimization and re-victimisation experiences.

1.1.4 Defining the term 'Victim'.

The word '*victim'* is from the Latin '*victima'*, meaning sacrificial animal (Dictionary.com, 2018). In examining the definition of the word '*victim'* we should understand that a definition may be different from the lived experience of being a victim. According to Altheide et al. (2001), the media has portrayed a perception that everyone is a victim, whether they are aware of it or not. The word victim has four main definitions in the dictionary when used as a noun:

- A person harmed, injured, or killed as a result of a crime, accident, or other event or action.
- A person who is tricked or duped.
- A person who has come to feel helpless and passive in the face of misfortune or ill-treatment.
- A living creature killed as a religious sacrifice.

Adapted from Oxford University Press (2018)

It is also possible to define a victim as a person needing to be "*shielded or protected from something*" Altheide et al (2001. p316).

1.1.5 History of Victimisation in males

In Roman legend and mythology, Romulus and Remus were cast adrift on the river Tiber, biblical times saw the story of Moses, left in a basket on the river Nile, and King Herrod ordered the murder of all male children when Jesus was born. Indeed, stories of the victimisation of children and infanticide are heavily populated by the destruction of male children throughout time. In the last century, it is estimated that 188 million men died as a result of various military combats fought across all nations,

for the most part by young men, including two world wars, the Vietnam war, and wars in Afghanistan, Iraq, the Falklands and Kosovo (Synnott, 2016).

Violence and abuse against non-combatant boys and men can be found in the history of many theatres of war. This type of violence is targeted specifically against males (HSR, 2005). Jones, (2000) cited examples from the Kosovo War and Stalin's purges. Indeed, in a theatre of war, sexual violence against men is a form of psychological warfare used to demoralise an enemy and was historically recorded as far back in time as Ancient Persia, and during the crusades (Sivakumaran, 2007*).*

In the last century, the landscape against which victimisation experience is set has changed. Research has been carried out to examine the deleterious impact of trauma and victimisation experiences, organisations formed and mobilised to lobby for legislative change and better support for victims. These organisations have sprung up across developed nations amidst a background of political and social change for citizens, to the status of consumers with associated rights. As a result, more legislation has been brought forward to improve support and justice for many victims.

1.1.6 The rise of Neoliberalism: A brief overview from citizen to consumer

Of relevance to this thesis is the political era of the Regan and Thatcher years. Margaret Thatcher was elected Prime Minister of the UK in May 1979 and Ronald

Reagan was elected President of the United States in 1980. The combined policies of their Governments aimed to renovate the economic structure of their respective countries and globalise the reduction in the power of the unions and the labour force, and promote financial freedom which brought Neoliberalism to the fore (Guttal, 2007; Robertson, 2007). Neoliberalism at a very basic level refers to the economic concept of market power, where individuals have a free market and free trade as well as robust rights over privately owned property (Harvey, 2007). This changed the basic concept of citizens to that of consumers. The notion of consumerization reverberated throughout western culture in all areas and found support in the Mont Pelerin Society, an exclusive consortium of academics and others formed in 1947, which further supported the rise of Neoliberal ideology.

Indeed, directly related to the rights of consumers, the Mont Pelerin Society (MPS, 1947) original proclamation states: "*The central values of civilization are in danger. Over large stretches of the earth's surface essential conditions of human dignity and freedom have already disappeared … The group holds that these developments have been fostered by the growth of a view of history which denies all absolute moral standards and by the growth of theories which question the desirability of the rule of law*" (MPS, 1947)**.** Indeed, one of their study priorities states **"***Methods of re-establishing the rule of law and of assuring its development in such manner that individuals and groups are not in a position to encroach upon the freedom of others and private rights are not allowed to become a basis of predatory power*" (MPS, 1947)**.** These notions and associated developments included the right to protect property and the person, and whether intentional or not, came about amid a

backdrop of the formation of many victim rights organisations who lobbied for the rights of victims to be enshrined in law.

1.1.7 The development of victim's rights organisations in the USA.

In the 1960's and 1970's attention began to focus on victims; victimisation surveys were developed, and many victim advocates came together, formalised and organised into effective and powerful voices for the many victims across the world. This cumulated in the formation of the World Society of Victimology (WSV) in 1979, which comprised a group of academics, practitioners, policy and lawmakers who came together to research, examine facilities, support victims and raise awareness. Joined by the harrowing voices of victims, change began with President Reagan's inception in 1982 of the President's Task Force on Victims of Crime (Dolliver, 1987). Among the recommendations was a call for amendments to the American constitution to allow victims a place within the criminal justice system. As a consequence of this, Congress implemented The Victim of Crime Act and founded the Office for Victims of Crime (Waller, 2011). Several other landmarks are notable in the development of support for victims and initiatives within the judicial system which developed over a similar period of time.

1.1.8 The Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power

Known as the "*magna carta for crime victims*" (Waller, 2011. p5), The Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power was espoused by the United Nations General Assembly in 1985 (ibid). This brought to the fore a realisation that a change in focus for the judicial systems was important. Rather than just focusing on the punishment of perpetrators, it recognised that victims should be the central focus, and investment should be made in the prevention of harm, restitution and compensation, with a significant space within the judicial system for victims.

1.1.9 The Violence Against Women Act

Attention also began to be paid to the plight of violent victimisation within the home and particularly, the dire experience of some women within abusive domestic relationships. Tireless campaigning by those in the feminist movement (Waller, 2011) in the 1980s and 1990s meant political pressure was applied; this resulted in President Clinton introducing the Violence against Women Act (VAWA) in 1994 and a government supported Office on Violence Against Women as part of the Department of Justice was adopted (Waller, 2011). It could be argued this act began a gender split in the support and provision for victims of domestic violence. The act was designed to protect women from domestic violence and allow for recourse and justice through the courts (Franklin, 2013) however, this act has had a slightly

contentious history over the years. Directly relevant to the current thesis, this act was designed to protect females from domestic violence and abuse with no reference to male victims. Male victims were not a priority. Indeed, of note, while the title of the act references women, the operational text of the act was gender neutral (DeMay, 1994).

1.1.10 Feminist activism; the second wave

Much research purports that females fair worse than men when falling victim of traumatic or victimising events. For example, Breslau (2009) used a 19-item trauma experience checklist which included a range of traumas such as rape, war-related trauma and natural disasters, to measure a simple count of event exposure to show evidence that females are more likely to show elevated endorsement of PTSD, compared to males. This is in direct conflict with the findings of Peterson, Voller, Polusney and Murdoch (2011) who noted that adult male victims of sexual abuse reported greater traumatic stress symptomology than females.

Research into victimisation experiences over the last four decades has been driven by a feminist activist agenda (Bumiller, 2009) which has commendably secured attention on the plight of female victims to investigate trauma prevalence and related outcomes. This has led to prolific resources, policy, treatment and interventions that have been designed and developed based on this research.

Indeed Graham (2006) states "*male victims are largely neglected by the predominantly feminist perspective…and the need…to account for both male and female alike*"(p.187). It would appear that this research direction has been at the expense of other victimized populations including minority groups such as the Lesbian, Gay, Bisexual & Transgender communities (LGBT).

This raises a question as to the validity of comparing males to females in interpersonal trauma and victimisation research. Other research has shown that male victims experience elevated psychiatric symptomology when compared to females (Gershon, Minor & Hayward, 2008). Breslau (2009) concurred that males endorse higher total rates of abuse and victimization experiences across the life-course when compared to females. Moreover, it has been well established that males are notorious for not disclosing interpersonal trauma and victimisation experiences for a variety of reasons including fear of being blamed (Alaggia, 2005; Preston, 2016). Thus, prevalence of victimisation experience may be vastly underestimated in male populations.

Relevant to this may be the Theory of Alexithymia, (Lane, Hsu, Locke, Ritenbaugh & Stonnington, 2015) which explains how a person is unable to label, understand or acknowledge emotions or actions and may help explain why some male victims do not identify themselves as a victim. In the case of sexual assault and rape, males may not self-identify and acknowledge their experience as an assault or as a crime against them (Wilson & Miller, 2015; Pfeffer & Cuevas, 2016). Indeed, for some male victims of rape who identify with the LGBT community, they may blame themselves feeling

that the reason this happened to them is because of their sexuality (Morrison & MacKay, 2000). Of further consideration, many may experience mild-moderate mental health difficulties (often referred to as 'sub-clinical'), which do not necessary warrant support from health care professionals, but nevertheless impact negatively on daily functioning and quality of life (Weiss et al., 1992; Mueser et al., 2004).

1.1.11 What is it to be a man.

Males are raised within a culture of stereotypical behaviour where they are expected to behave in certain acceptable ways. What is it to be a man in a modern culture? What sets the background against which 'maleness' is judged? There are cultural context and stereotypes against which, being a man is measured including the biological man, the evolutionary man and the cognitive aspects of being a man.

Men and women are often described as opposites. In the seminal work '*Men are from Mars, Women are from Venus*', Gray (1992), explained the differences between men and women in relation to communication. One very pertinent commentary on the differences between how men and women cope with difficult times is found in chapter 3, "*Men Go to Their Caves and Women Talk*" (pp.24-30). Although alluding to love and relationships, Gray makes some very interesting points. He claims that in times of stress men remove themselves to their 'cave' yet, when women experience stress they 'talk'. Interestingly, he states "*When a man doesn't feel he is making a positive difference in someone else's life, it is hard for him to continue caring about his life and relationships. It is difficult to be motivated when he is not needed. To*

become motivated again he needs to feel appreciated, trusted, and accepted. Not to be needed is a slow death for a man" (p.33).

Conversely, for a woman, he states "*Through sharing her feelings she begins to remember that she is worthy of love and that her needs will be fulfilled. Doubt and mistrust melt away. Her tendency to be compulsive relaxes as she remembers that she is worthy of love-she doesn't have to earn it; she can relax, give less, and receive more. She deserves it*" (p.34). This is an interesting narrative. The majority of research into victimisation experiences is female centric and given that we know men and women react differently in times of stress, it supports the need for further research into male victimisation so that gender specific treatment pathways can be developed that are appropriate to males, not just what works to support the females.

However, men and women are members of the same species, for the most part the two sexes are almost identical, separated only by one chromosome from 46 separate ones. Men carry the XY chromosome for biological sex and women carry the XX. A difference of only 2.17%, and while genes are not necessarily responsible for traits (Shpancer, 2011), perhaps there is a 100% difference in the social constructs that form the lived reality for men and women individually (Synnott, 2009).

These social constructs that weigh on men and women are found in the stereotypes that pervade modern culture. Approximately 3.3 billion men share this planet with their female counterpart, some are intermittently off planet too, each one is an

individual in terms of DNA and fingerprints, yet, gender stereotypes are the norm (Synott, 2009).

Male and female gender traits were examined by Williams and Best (1977) who found that being male was associated with adjectives such as: masculine, aggressive, adventurous, dominant, forceful, strong, independent, ambitious, boastful and daring. Females in the same study were associated with adjectives such as: feminine, sentimental, emotional, affectionate, sympathetic, soft-hearted, talkative, attractive, flirtatious and gentle. Yet it is argued that masculinity is fluid over time and space (Gilmore, 1990; Williams & Best, 1990), and further, that many females have been known to exhibit androgynous qualities, that is, they exhibit traits that are associated with masculinity and vice-versa (Powell & Butterfield, 2015). Perhaps masculinity and femininity are more a continuum than a definitive state. What is interesting is that females were described as talkative and talking therapies are used in the treatment of survivors of trauma and victimisation (NHS Counselling, 2017), yet while the research behind such therapies is for the most part as previously noted, female centric, male specific treatment pathways and therapies are conspicuous by their absence. Indeed, as outlined below, males are more likely to be the victims of violent crime (Hollway & Jefferson, 2000; Breslau, 2009) yet, resist the label of '*victimhood*' as it contradicts the stereotypical notion of masculinity (Owen, 1995). While the current therapies may have some success with male clients, surely further research into the lived experience of male victims and the development of gender specific interventions would improve the outcomes for all victims. It would appear, that males are not a priority in the research of victimisation experiences. Whether

the same or different, we owe it to men to make sure that the research community, support providers, law makers and legislators are doing the best for the male population.

Section 1.2: Prevalence of Interpersonal Victimizations

This section of the introduction will discuss the issues surrounding measurement techniques used in the United States including official state records and self-report questionnaires. Further, it will outline the definitions, prevalence and risk factors associated with interpersonal victimisation experiences both in childhood, and across the life-course, and discuss the cumulative impact and negative outcomes correlated to these experiences. Where available, data will be presented on male specific victimisation experiences and will outline victimisation experiences such as rape, sexual assault and assault, as well as other victimisation experiences of a personal kind.

1.2.1 The National Crime Victim Survey and the Uniform Crime Reporting Program.

In the US, one method of recording victimisation experiences is the National Crime Victim Survey (NCVS). This annual self-report survey queries violent victimisation experiences in the previous six months in a representative sample of the American population, aged 12 years old and above. Also queried is demographic information, and those who endorse having experienced a victimisation experience are asked about the offender, characteristics of the victimisation against them, if they reported to law enforcement, and if not, why not? (Truman, 2016).

Further to this, the Uniform Crime Reporting Program (UCR) collects data from law enforcement agencies across the USA who voluntarily take part in the scheme by submitting summary reports on violent crime to the Federal Bureau of Investigation (FBI). The NCVS, while collecting information on victimisation experiences is useful in that it helps expose the dark figure of crime, the crime statistics for things that go unreported, while the UCR, which collects information on crime rates, details those crimes that are reported to law enforcement (Skogan, 1977). Data from the NCVS has shown a considerable decline in the endorsement of both violent and serious violent crime since the early 1990s and with a similar but more subtle decrease shown in the records of violent crime reported to law enforcement as recorded in the UCR data (Truman, 2016). Further, data from NCVS (2011), has shown that males are overall more likely to be victims of violent crime compared to females and that this has been a consistent finding over previous years (Truman, 2016).

The American Society for the Positive Care of Children (American SPCC) published nationwide statistics on the prevalence of child abuse and neglect from a report by the U.S. Department of Health & Human Services, Office of the Administration for Children & Families (Child Maltreatment 2016, 2018). In 2016, the statistics showed the serious and frankly distressing rates of child abuse and maltreatment across the United States.

- 4.1 million maltreatment referrals were made to services
- 7.4 million children were involved in these reports to services
- 74.8% were victims of neglect

- 18.2% were physically abused
- 8.5% were sexually abused
- 6.9% were Psychologically maltreated
- 24.8% of victims are under one year old
- Approximately five children died every day from abuse and neglect
- Fatality rates are higher for boys than girls
- Approximately 60,000 children across the nation were sexually abused in 2016

(Adapted from the American SPCC, Child Abuse Statistics in the U.S. 2018)

While the current thesis does not examine the perpetrators of such events, it is notable that this report also shows more than half (53.7%) of those who abused children were women (Child Maltreatment 2016, 2018). Nationally recorded statistics have received criticism for not being able to expose the dark figure of crime, that is the crimes that go unreported (DeLisi et al., 2016). It is well established that men do not disclose their victimisation experiences (Brown, 2004). Worth noting, women do not always disclose victimisation experiences either (Waller, 2011), therefore, it is pertinent to assume that official statistics gravely underestimate the true prevalence and extent of victimisation experiences in the general population (Fisher, Daigle, Cullen & Turner, 2003; Koss, Gidycz & Wisniewski, 1987; Spitzberg, 1999; Wolff, Blitz, Shi, Siegel & Bachman, 2007)

1.2.3 Self-report studies.

While the NCVS is a self-report study, other sources of data could help expose this dark figure of crime and victimisation experiences, establishing statistics closer to the real prevalence of traumatic and victimisation experiences. Large epidemiological studies have been used to show the prevalence of victimisation experiences across the population. For example, Burns, Lagdon, Boyda and Armour (2016), using data from the National Epidemiologic Survey on Alcohol and Related Conditions Wave II (NESARC II), showed that almost 33% of respondents had suffered at least one victimisation experience at some point across their life. Self-report studies have received some criticism. Firstly, many self-report surveys are cross sectional in nature and therefore may be subject to recall bias. Secondly, many surveys only query if a given experience happened without consideration to the regularity, length of duration or intensity of these experiences (ibid).

1.2.4 Type specific interpersonal victimisation and abuse experiences

Being male is the greatest risk factor for violent victimisation (Lauritsen & Heimer, 2008; Truman & Rand, 2010), except in the case of sexual assault and rape (Truman, 2011). Understanding what is meant when we discuss victimisation events is important and this part of the chapter will outline some of the definitions and terminology used when referring to some of the major victimisation experiences.

1.2.4.1 Adverse Childhood Experience (ACE)

ACE is an umbrella term that includes physical, sexual, psychological abuse, maltreatment and neglect of a child. ACEs can be divided into two categories: (i) those of commission, that is acts that are inflicted on a child; and (ii) those of omission, that is the failure to meet the health and welfare needs of the child (McCoy & Keen, 2013). WHO (2016, p1) stated that child abuse and neglect includes "*all types of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, which results in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power*".

One pertinent point to note is that definitions of these events can change over time and across culture (Coghill, Bonnar, Seth, Duke & Graham, 2009), and the extant literature will often see the words '*abuse*' and '*maltreatment*' being used interchangeably (Arias, Leeb, Melanson, Paulozzi & Simon, 2008).

1.2.4.2 Childhood Sexual Abuse (CSA)

CSA is of global societal concern (UNICEF, 2014), and has been described as the *"involvement of a child in sexual activity that he or she does not fully comprehend, is unable to give informed consent to, or for which the child is not developmentally prepared and cannot give consent"* (WHO, 1999, p.15). Further, CSA has also been defined as *"any form of child abuse in which an adult or older adolescent uses a child*

for sexual stimulation" (American Psychological Association; APA, 2013, p. 30). Both these definitions have encompassed a wide range of behaviours that are abusive to children.

A meta-analysis conducted by Pereda, Guilera, Forns and Gomez-Benito (2009) found that 19.7% of females and 7.9% of males experience at least one form of inappropriate sexual experience prior to age 18 years. Barth et al. (2013) found 8 – 31% of girls and 3 – 17% of boys endorsed some form CSA in 55 studies examined over 24 countries. Specifically, in the US, it is estimated that over 58,000 children suffered sexual abuse in 2016, equating to one in every four girls, and one in every six boys (SPCC, 2018).

Risk factors for CSA victimisation have proved difficult to specify (Finkelhor & Baron, 1986) however, some have been identified including low financial resources within the family (Bergner, Delgado, & Graybill, 1994), the absence of one biological parent or presence of a step-father and, parental conflict (Finkelhor & Baron, 1986).

1.2.4.3 Child Physical Abuse (CPA)

The WHO have defined CPA as "*Intentional use of physical force against the child that results in – or has a high likelihood of resulting in – harm for the child's health, survival, development or dignity. This includes hitting, beating, kicking, shaking, biting, strangling, scalding, burning, poisoning and suffocating. Much physical*

violence against children in the home is inflicted with the object of punishing" (Butchart et al., 2006, p.10).

A meta-analysis of the prevalence rate of physical abuse derived from self-report studies across 25 countries was estimated at 226 children per 1000, a rate of 22.6% (Stoltenborgh, Bakermans-Kranenburg, van IJzendoorn & Alink, 2013). In the US, among all victims of childhood abuse and maltreatment, it has been estimated that 18.2% suffer physical abuse (Child Maltreatment 2016, 2018). Risk factors for the physical abuse of children tend to concentrate on the perpetrators characteristics and include being born to young parents, a father's alcohol intake, impoverished communities, an unhappy or anxious mother and severe parental disciplinary measures (Black, Heyman, & Slep, 2001).

1.2.4.4 Childhood Psychological and Emotional abuse.

Psychological or emotional abuse can relate to single incidents as well as systematic lack of provision to meet the appropriate needs of a child. The WHO states "*Acts in this category may have a high probability of damaging the child's physical or mental health, or its physical, mental, spiritual, moral or social development. Abuse of this type includes: the restriction of movement; patterns of belittling, blaming, threatening, frightening, discriminating against or ridiculing; and other non-physical forms of rejection or hostile treatment*" (Butchart et al., 2006, p.10). Similarly, neglect of a child can also include isolated incidents as well as chronic failure to meet the

appropriate health and welfare needs of a child in domains including "*health; education; emotional development; nutrition; shelter and safe living conditions*" (ibid, p.10). In 2010, according to the Fourth National Incidence Study of Child Abuse and Neglect (NIS-4), over 300,000 children were estimated to have suffered emotional abuse. Further, a devastating 2.25 million children were estimated to have been victims of neglect (Sedlak et al., 2010).

Prevalence rates have traditionally been established through self-report questionnaires, child protection cases and officially recorded crime figures. While the operationalised definition of these adverse childhood experiences in these figures is reasonably consistent, the definition of childhood, or rather, the point at which childhood ends is less well established. For example, the NESARC II uses a cut off prior to age 18 years to define childhood while May-Chahal and Cawson (2005), used under 16 years and further, Christoffersen, Armour, Lasgaard, Andersen and Elklit, (2013) used under age 12 years to define childhood. Therefore, this causes problems when comparing these studies to each other as the populations are not the same.

1.2.4.5 Victimisation in Adolescence

In adolescence, interpersonal victimisation can be experienced in the form of peer victimisation or bullying, cyber bullying, dating violence and assault or assault/battery.

Bullying in adolescence is described as "*aggression … that is used deliberately to secure resources*" (Pellegrini & Long, 2002. p.260), and is characterised by the purposeful use of physical, oral or ancillary aggressive acts (Dodge & Coie, 1987). The rise in social media use has exposed young people to the danger of victimisation. Experiences via these internet interfaces and cyber bullying has been described as negative internet and mobile phone practices including stranger and/or paedophile contact attempts, hacking, and internet behaviours intended to cause harm (Vandebosh & Van Cleemput, 2008). Modecki, Minchin, Harbaugh, Guerra and Runions, (2014) examined face-to-face verses cyber bullying and harassment in adolescence via a large meta-analysis and found that 35% of adolescence endorsed in person experiences and 15% endorsed online or cyber bullying. However, as previously mentioned, lack of reporting, is again a factor in the recorded figures as adolescence also tend not to report bullying and harassment experiences (DeLara, 2012).

Dating violence in adolescence has a similar thread to that of Intimate Partner Violence (IPV) however, dating violence is used to describe the experience of victimisation in intimate relationships in adolescence, while IPV is more commonly reserved for adult relationships (Teten, Ball, Valle, Noonan & Rosenbluth, 2009). Dating violence is an umbrella term for physical, sexual and psychological victimisation that adolescent populations can experience as they begin to explore intimate partner relationships (Saltzman, Fanslow, McMahon & Shelley, 1999). Physical victimisation can include fear of physical harm or death and includes any form of physical assault experienced at the hands of a partner such as hitting,

stabbing or choking (Saltzman et al., 1999). Sexual victimisation includes unwanted and non-consensual penetrative or non-penetrative sexual acts and any harassment of a sexual nature (Basile & Saltzman, 2002). The full extent of sexual victimisation is explored later, where IPV is examined in greater detail. Dating violence victimisation has been shown to differ by gender with an estimated 8.63% of females and 15.15% of males suffering physical and psychological dating violence in adolescence (Rivera-Rivera, Allen-Leigh, Rodríguez-Ortega, Chávez-Ayala & Lazcano-Ponce, 2007).

1.2.4.6 Assault and assault/battery.

Assault and assault/battery is variously defined at state level in the USA with each state making its own definition in law. In general, assault can be thought of as an effort to injure someone else, and includes circumstances where threats and/or threatening behaviour are perpetrated against another person (FindLaw, 2019). One common definition would be an intentional attempt, using violence or force, to injure or harm another person. Another straightforward way that assault is sometimes defined is as an attempted battery. Indeed, generally the main distinction between an assault and a battery is that no contact is necessary for an assault, whereas an offensive or illegal contact must occur for a battery (Thomson Reuters, 2018). The definition of assault and assault/battery stretches across the time from adolescence to adulthood with adolescents showing much higher rates of this victimisation than adults (Child Trends 2014, 2015). Prevalence rates show that for males, this is a

concerning type of event as the recorded statistics show this is a consistently more common experience for boys and young men than for females.

- Males aged 12 to 14 years are more likely to experience aggravated assault (8.2%) and simple assault (50.9%) than their female peers (2.8%; 32.1%).
- Males aged 15 to 17 years are twice as likely as to experience aggravated assault than female counterparts (6.6% versus 3.1%).
- Males aged 18 to 20 years are more likely than females to experience aggravated assault than females aged 18 to 20 years (7.2% compared to 5.1%).
- White male youth are more at risk than their Black or Hispanic peers.

Child Trends, 2014

Moving into adulthood, assault victimisation figures again show that in general, males tend to be at higher risk of victimisation events (Morgan & Kena, 2017), however, according to victimsofcrime.org (2014), white adult males are at less risk than their Black or Hispanic adult peers.

1.2.4.7 Intimate Partner Violence (IPV)

One other prominent victimisation experience in adulthood is that of IPV. These forms of victimisations are most often hidden in the home. IPV is described by the Centres for Disease Control and Prevention (CDC) as including "*physical violence, sexual violence, stalking and psychological aggression (including coercive tactics) by*

a current or former intimate partner (i.e., spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner)" (Breiding, Basile, Smith, Black, Mahendra, 2015. p.11). The CDC also clarified that an intimate partner is "*a person with whom one has a close personal relationship that may be characterized by the partners' emotional connectedness, regular contact, ongoing physical contact and sexual behavior, identity as a couple, and familiarity and knowledge about each other's lives.*" (ibid).

Physical violence at the hand of an intimate partner can range from being pushed or slapped, to more serious and on occasion lethal victimisation experience (Daigle, Scherer, Fisher & Azimi, 2016) and can include the use of weapons (Breiding et al., 2015).

Psychological victimisation by a romantic partner can include experiences of coercive control, whereby the victim is controlled and forced to comply with the perpetrator's will. Social isolation were the perpetrator controls or limits the victims access to friends and family is also a feature of some experience of IPV and psychological abuse can also include degrading or offensive actions towards the victim, threats and ridicule, or lack of affection (Orcutt, Garcia & Pickett, 2005). These are often referred to as small 't' traumas and have been shown to be extremely deleterious to the victim (Crastnopol, 2015).

Traditionally it has been thought that IPV is something that happens to women, having been carried out by men (Morgan & Fraser, 1994). However, prevalence rates

of IPV show a very different position. For example, Coker et al (2002), found that 28.9% of females and 22.9% of males experience IPV at some point across their lifespan. IPV has been extensively researched in student populations although the experience of IPV in students as a dating phenomenon may be distinct from that experienced by married or co-habiting adults. Makepeace (1981) showed that one in five dating college couples endorsed IPV in the form of dating violence.

Once again, controversy surrounds the issue of gender and IPV. IPV has traditionally been viewed through the lens of feminist activism, where the traditional perpetrator/victim dyad is of the strong and burly male aggressor attacking the weak and demure female victim. While it is right that female victims of IPV require support and protection, a new picture is emerging that includes both female and male victims. The gender disparity is likely, in part, due to the nature of cases that are reported and progressed through the judicial system. For example, given that strong and burly men may hit harder than their female intimates, it is likely that incidences involving a male perpetrator and a female victim are more likely to end in physical injury to the female and thus, more likely to attract the attention of police, support networks and the judicial system (Morse, 1995).

Self-report surveys that include measures such as the Conflict Tactics Scale (Morse, 1995) have exposed a somewhat different picture and called into question the traditional view of a man physically assaulting a woman. It also exposed a variety of behaviours that have negative outcomes for all victims including issues of coercive control and small ‘t’ traumas as discussed above. Archer (2000), in a large meta-

analysis of 37 studies with college student, found that females were more likely to perpetrate IPV than males, and this has been supported by several other findings (cf. Baker & Stith, 2008; Cercone, Beach, & Arias, 2005; Daley & Noland, 2001; Durant et al., 2007; Forke, Meyers, Catallozzi & Schwarz, 2008; Fossos et al., 2007; Gratz, Paulson, Jakupcak & Tull, 2009; Harned, 2001; Hendy et al., 2003; Hines & Saudino, 2003; Holt & Gillespie, 2008; Luthra & Gidycz, 2006; Monson & Langhinrichsen-Rohling, 2002; Shook, Gerrity, Jurich & Segrist, 2000; Simonelli, Mullis, Elliot & Pierce, 2002; Williams & Frieze, 2005).

Taken together, this evidence calls into question the traditional gendered view of IPV. Indeed, Sabina and Straus (2008), also found that males students are more likely to experience physical IPV than their female counterparts.

Of note, in couples who endorse violence within their relationship, 71% endorse both partners having perpetrated at least one physical victimisation against the other (Straus & Ramires, 2007). Indeed, females were more likely to be the perpetrator when only one partner engaged in physical violence. Given the recent research outlined here, new theories are required to explore the dynamics of IPV and the relationship between IPV and other forms of victimisation across the life-course.

1.2.4.8 Sexual victimisation and rape.

Sexual victimisation within a romantic relationship is based around the issue of consensual sexual activity and lack of consent to attempted or completed penetration, whether vaginal, anal or oral is rape (FBI UCR, 2014). Problems have resided with the definition of rape because until recently, a man could not be raped according to the definition in American law. Prior to January 2013, the definition of rape was the "*carnal knowledge of a female forcibly and against her will*" (U.S. Department of Justice, DOJ, 2014, p.1). This meant that only a female could be a victim of rape in any circumstances. However, the Federal Bureau of Investigation (FBI) revised the definition with effect from 2013 as; "*Penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim*" (ibid, p.1). This now encompasses not only male victims, but a wider range of sexual victimisation and rape behaviours. Before this change in the legal definition, non-consensual buggery of a man, received a much lesser sentence when compared to a similar charge brought for a female victim or indeed, in cases of rape committed against a female victim (Rogers, 1995).

Research in the area of rape is dominated by those with a feminist agenda with a focus on female victims of male perpetrators (Graham, 2006). Where male victims have been researched, they tend to concentrate on prison populations (Scacco, 1982; Zeringer, 1972). Of note, 38% of rape and sexual violence victims in America are male, indeed in childhood, male victims of sexual abuse experience the use of greater force

(Doll et al., 1992; Fromuth & Burkhart, 1987). However, when these acts are perpetrated against a man, it appears they are considered a much less serious offence.

1.2.5 The cumulative impact of victimisation.

Negative outcomes have been shown in domains including social, physical, and psychological. Indeed, victims have also been shown to have more engagement with the judicial system and lower educational attainment. It is widely accepted that victimisation experiences are not stand-alone entities (Appleyard, Egeland, van Dulmen & Sroufe, 2005). Indeed, where a child suffers one form of victimisation they are at increased risk of experiencing another (Finkelhor, Ormrod & Turner, 2007). These multiple experiences or poly-victimizations are often chronic in nature and can occur concurrently or sequentially. Sequential victimisation is sometimes referred to as re-victimisation (Messman & Long, 1996; Messman-Moore & Long, 2000), and while the vast majority of investigation into poly-victimization is concentrated on childhood (cf., Finkelhor *et al.*, 2007; Higgins & McCabe, 2001; Litrownik *et al.*, 2005; Saunders, 2003) or on one specific type of victimisation experience, for example IPV (Cavanagh et al, 2013), the principle of poly-victimization is that it increases the risk of further victimisation or re-victimisation at a later date. Currently few studies have examined the impact of victimisation the occurs beyond these singular focused events or across the life-course. For example, experience of childhood maltreatment shows an increased risk of sexual violence victimisation in adulthood (Ports et al.,

2016). Indeed, Werner et al. (2016) who acknowledged that the majority of this research is female centric, found an increase in the odds of sexual violence victimisation in adulthood for those who had experienced childhood maltreatment. Moreover, a greater risk was observed in men when compared to women in the three samples investigated.

Further, several studies have already shown multiple experiences of trauma and victimisation in a simple count fashion. Many of these studies are flawed in that they then ask the participants to identify their worst experience or trauma, attributing any evident symptomology to the trauma identified rather than to the cumulative impact. For example, Kjoesnes, Waal, Hauff, and Gossop (2017) examined trauma within a substance user population and where more than one trauma was endorsed by participants, they were asked to select which trauma they felt impacted them most. By attributing outcomes to singular experiences, research may overestimate the experiences and outcomes associated with specific events instead of understanding the cumulative nature of victimisation experiences.

1.2.6 Cumulative effects of poly-victimization and psychopathology

An extensive evidence base has demonstrated how cumulative experiences of multiple victimisation impacts mental health in a dose response fashion. That is, the more victimisation experiences a person is exposed to, either poly-victimization or re-victimisation, the more likely that person is to have a corresponding increase in

negative mental health symptomology including problems associated with anxiety, depression, PTSD (Burns et al., 2015; Cavanagh et al., 2013; May-Chahal & Cawson 2005; Finklehor et al., 2011; Le, Holton, Romero & Fisher, 2018; Catani, Schauer & Neuner, 2008; Lewis et al., 2010; Panter-Brick et al., 2009), and developmental and emotional difficulties (Catani et al., 2008; Klasen, Oettingen, Daniels & Adam, 2010). Many individual victimisation experiences have been associated with specific psychopathology. Dube, Anda, Felitti, Edwards and Williamson (2002) argued that childhood sexual abuse is common among both boys and girls however, Banyard, Williams and Siegel (2004) claimed that more is known about the long-term consequences of CSA in females than in males. Physical and behavioural outcomes that have been associated with CSA include long term pain and obesity (Latthe, Mignini, Gray, Hills, & Khan, 2006; Irish, Kobayashi, & Delahanty, 2009), high risk sexual behaviours (Arriola, Louden, Doldren, & Fortenberry, 2005), suicidal behaviours (Paolucci, Genius, & Violato, 2001), and elevated alcohol consumption (Rind, Tromovitch & Bauserman, 1998). Further, an increased risk has been shown for many psychological outcomes associated with CSA. These include Post Traumatic Stress Disorder (PTSD, Chen et al., 2010; Kendall-Tackett, Williams, & Finkelhor, 1993) and personality disorders, anxiety disorders, depressive disorders and eating disorders (Maniglio, 2009). Neglect and maltreatment in childhood have been correlated with a wide range of psychopathology including attachment disorders, major depression, schizophrenia and PTSD (Perry, Beauchaine, & Hinshaw, 2008). Physical assault and IPV have been shown to correlate with depression, substance use and PTSD (Coker et al 2002; Dutton, et al., 2006). Victims of rape may suffer from "*rape trauma syndrome*" (Dennis, 2011. pp41-42) which can include symptoms of

anxiety, depression, sexual dysfunction, drug use, suicidal ideation, self-blame, shame and humiliation, as well as PTSD (Coxell & King, 1996; Myers 1989).

Psychopathological outcomes are made in line with the diagnostic criteria as set out by the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association (APA), 2013). The DSM-5 diagnostic criteria for psychopathologies are outlined in appendix 1. While not included in the diagnostic criteria for PTSD, many have argued for the inclusion of a subtype of complex PTSD (Resick et al., 2012), which is recognised as a multiplicity of outcomes that include but are not limited to PTSD symptomology. For example, children can experience difficulty with attachment, emotional self-regulation, aggression, substance and eating disorders, low self-esteem and shame or guilt (Force, 2005).

1.2.7 Issues relating to the measurement of victimisation

Several germane issues relating to the study of prevalence and outcomes of victimisation should be highlighted. Firstly, most investigations are cantered on a limited number of variables, for example, many concentrate on one developmental period such as only childhood, or only adolescence. Others concentrate on singular victimisation experiences such as IPV or physical assault. Further, where investigations consider poly-victimised or re-victimised populations, research is female centric or mixed samples; the exclusion of male samples results in a lack of representative samples and may obscure the prevalence of victimisation experiences

across the entire population. Indeed, many studies use a simple count methodology to establish the number of victimisation experiences suffered by participants, this technique is limited both theoretically and methodologically. For instance, merging endorsements of rape, natural disasters and accidents, makes dubious academic sense. Rape is an interpersonal victimisation experience and criminal in nature while experience of an earthquake or a car accident are not targeted and are beyond the control of any one individual.

Of concern, research shows that victimisation experiences congregate within the population rather than disperse randomly throughout the population. Thus, outcomes may be differential for those experiencing interpersonal poly-victimization when compared to those who experience natural disasters or accidental trauma.

In sum, from the limited information available, it is apparent that men are vulnerable to countless different interpersonal victimisation and poly-victimization experiences and despite the strong research history of victimisation in female populations, men have an elevated trauma exposure rate when compared to females, which may differ with age (Freidman, Keane & Resick, 2007).

Section 1.3: Theoretical implication in victimisation.

This section of the introduction will examine theories that are relevant to aid our understanding of the victimisation experience. Despite so little research on life-course interpersonal poly-victimization, theories are postulated from many disciplines including psychology, criminology, victimology, social policy and related fields. Indeed, many examine victims in relation to the perpetrators or focus on the perpetrators when exploring victims, and many are focused on the outcomes for victims. Examined here will be some of the more prominent of these theories that may aid our understanding of some of the facets of this most deleterious of experiences.

1.3.1 Ecological Systems Theory

One suitable framework to consider when examining interpersonal poly-victimization is the Ecological Systems Theory (EST; Bronfenbrenner, 1979). This theory considers human development from a child perspective within a system of five stratum which nest together with complex interactions that can impact or be impacted by each other (see Figure 1.). EST proposes these interactions mould the development of the person.

Around the individual, these layers include:

The Microsystem: This is concerned with the environment in which a person lives and the bidirectional interactions with family, peers and community. The person acts,

reacts and interacts to this close environment and as such is an active participant within this layer (Ryan, 2001). No-one moves through their environment without influencing those around them and equally being influenced by those around them. This is a particularly important notion regarding interpersonal poly-victimization, as contrary to what many believe, the majority of perpetrators are not strangers but are known to the victim (Drakulich, 2015). Further, if these interactions are inconsistent or hostile, this can elicit fear or anxiety and wellbeing suffers (Caldera & Lindsey, 2006; Davies & Lindsay, 2004).

The Mesosystem: This layer in the EST services the connections between the microsystems relevant to the person. For example, when supportive connections converge for a child at school, for example the child's parents, teachers and peers, academic success is argued to be more likely (Siegler, Deloache & Eisenberg, 2003). In relation to interpersonal poly-victimization, victimisation experiences have a deleterious impact on the person and can impact their inter-relatedness to others.

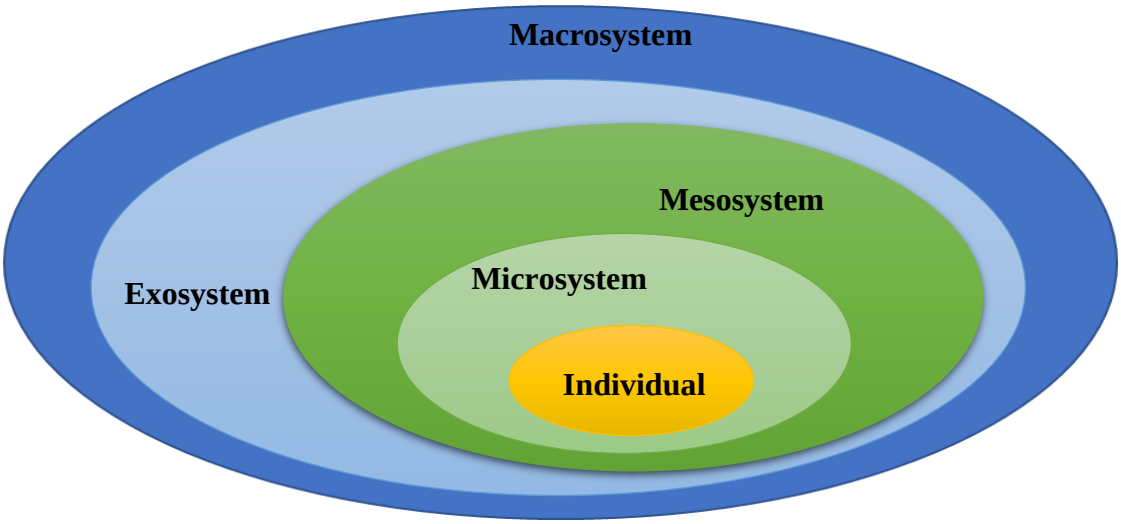
The Exosystem: The Exosystem relates to social systems that the individual does not directly engage with, but which have an impact on the individual. Greenberg, O'Neil and Nagel (1994) found that a parent's satisfaction in their workplace may impact emotional relationships between family members.

The Macrosystem: This level is concerned with the culture and subculture that a person lives within, it includes factors such as laws, social class and customs or general beliefs. Different cultures have different belief systems and laws are fluid, all of which will impact the individual. This is relevant to interpersonal poly-victimization

in men, especially given the roles, stereotypes, attitudes and responsibilities of men in a modern culture as discussed in 1.10 above.

The Chronosystem: As noted above, laws and cultures among other factors are fluid and change over time, this layer of Bronfenbrenner's theory considers a temporal component. This is particularly relevant as previously detailed in section 1.2.12; up until 2013, a man could not be raped according to the definition used in American law (U.S. Department of Justice; DOJ, 2014. P.1.), a change in the definition and the gendered discourse surrounding victimisation have ensured a change for those male victims of rape who disclose their experience.

Figure 1.1: Pictographic representation of Bronfenbrenner Ecological Systems Theory adapted from: https://www.psychologynoteshq.com/bronfenbrenner-ecological-theory/



EST may add to the understanding of the support and social interactions of victims and their relationships with others. It is important to understand that, for most victims, the perpetrators are located within their personal ecological system.

Community psychology, which promotes health and wellbeing by valuing the social context within which people function, appears to be a good fit for the EST framework. By highlighting that within the layers there are opportunities to intervene at many different levels and not solely at the individual level, social issues such as low socio-economic status (SES) within a community or the lack of social capital may be addressed (Cox, Holmes Moloney, Priest & Ridley-Dash, 2013). Indeed, core to the community psychologist is the understanding that insufficient social capital experienced by those with low SES increases health problems, particularly in communities where the disparity between rich and poor is at its greatest (Pickett, & Wilkinson, 2015). This is an important area when understanding the cumulative impact of interpersonal poly-victimization that pervades these personal relationships.

1.3.2 Social Learning Theory

Another theory that has been applied to interpersonal victimisation is that of Social Learning Theory (SLT; Bandura, 1971). According to this theory, behaviour is learned via the observation of other people, known as models. These observed behaviours are encoded and later imitated, and if the reinforcement for these behaviours is

positive they are likely to be repeated. SLT is more often applied to the offending behaviour than the victim however, it may still be useful to apply this theory to aid understanding of victimisation. Victims may seek out support from their social network and this may be directly associated with differential reinforcement, where the act of seeking support is positively reinforced. Further, Fox and Cook (2011), speculated that there are similarities between learning perpetrator behaviours and learning victimisation and risk behaviours. Expanding SLT to explain victimisation experiences has not been exhausted and further work in this area is required (cf. Foshee, Bauman, & Linder, 1999; Fox & Cook, 2011; Gagnon, 2018).

Reinforcement can be from external or internal sources and in the case of poly-victimization could include the victim enduring these abusive experiences because they have accepted them as normal (Bell & Naugle, 2008), or perhaps because being part of a group where victimisation is normalised offers more protection overall than not being part of the group. This is what was found when Gagnon (2018) examined gang culture in Florida. While gang membership is a factor for an increased risk of experiencing victimisation events (Melde, Taylor & Esbensen, 2009; Taylor, Welsh, Kim & Sherman, 2007), gang members claim protection is the greatest motivation for preserving these associations (Peterson, Taylor & Esbensen, 2004).

Of note, SLT may have an important use in explaining the inter- or transgenerational transmission of victimisation experiences. The Intergenerational Cycle of Violence Model (Gagnon, 2018) proposed that when a person is exposed to violent acts, whether towards themselves directly or as a witness, as in the witnessing of domestic

violence in childhood, they are at increased risk of both perpetration and victimisation at a later date (Gagnon, 2018; Laner & Thompson, 1982; Marshall & Rose, 1988; Steinmetz, 1977). Indeed, some evidence exists to suggest that experience of victimisation could be implicated as an aetiological factor in the perpetration of offending behaviours (Kalmuss, 1984; Mihalic & Elliott, 1997; Straus & Gelles, 1986).

1.3.3 Lifestyle/routine activities theory and the victim offender overlap.

Whilst sometimes disputed (Lauristen & Laub, 2007), Wolfgang (1958) argues that central to the intergenerational transmission of violence is the victim-offender overlap. It does however, concentrate on lifestyle and living environments so does not explain the entire multifaceted nature of victimisation. For example, Hindelang, Gottfredson and Garofalo (1978) examined victimisation patterns in the National Crime Survey (NCS) and found certain factors increase the risk of victimisation including lifestyle, and routine leisure and occupational activities. This lifestyle/routine activities theory is among the most influential when considering the aetiology of the victim/offender overlap. Further, social controls thought to impede offending behaviours may also diminish contact with offenders who are motivated to hurt others (Gottfredson, 1981), and as such, the risk of victimisation is reduced due to proximal distance between offenders and victims.

Several critiques of the lifestyle/routine activities theory have been proffered. Jensen and Brownfield (1986) claim that increased risk of victimisation due only to exposure to perpetrators is an "*artificial dichotomy*" (p.87). Indeed, Lauritsen and Laub (2007) claim the lifestyle/routine activities theory cannot account fully for the victim perpetrator dyad.

That said, the situational context of interpersonal disputes is relevant to poly-victimization. In adulthood, most murders, assaults, robberies and sexual assaults stem from some form of dispute involving two or more parties and sometimes minor disputes can escalate. Conflicts are common in all aspects of life although they rarely escalate to violent or criminal behaviours; when they do, who is labelled as the victim and who is labelled as the perpetrator is often subjective (Gould, 1998). Indeed, in a conflict both parties can be victims and aggressors. Riggs (1993), Rouse (1990) and Vivian and Langhinrichsen-Rohling (1994) found support for relationships where violence perpetration was mutual and bi-directional.

1.3.4 Attachment Theory

Another theory which may help explain some of the mechanisms involved in the victimisation experience is Attachment Theory. Attachment theory highlights the difficulties of emotional dysregulation linked with relationship formation. Bowlby (1982) claimed that children develop internal working models grounded in their very earliest relationships with their mother or other primary caregiver and through a

process of internalisation, this allowed the person to feel worth the love they receive. Bowlby postulated that attachment styles were developmental in nature in that they are experienced across the life-course.

Attachment behaviours are now proposed to exist in both childhood and adulthood (Hogg & Vaughan, 2008), with Hazan and Shaver (1987), having proposed three general attachment styles in adulthood, reflecting those of childhood:

- Secure Attachment — Trust in others; not worried about being abandoned; belief that one is worthy and liked; find it easy to be close to others; comfortable being dependent on others; and visa versa.
- Avoidant Attachment — Suppression of attachment needs; past attempts to be intimate have been rebuffed; uncomfortable when close to others; find It difficult to trust others or to depend on them; feel nervous when anyone gets close.
- Anxious Attachment — Concern that others will not reciprocate one's desire for intimacy; feel that a close partner does not really offer love; or may leave; want to merge with someone and this can scare people away.

(Adapted from Hazan & Shaver, 1987, in Hogg & Vaughan, 2008. p.508)

However, evidence supporting attachment theory has been criticized as much does not show developmental processes. For example, cross-sectional studies conducted with adults of attachment cannot show developmental processes as there is no independent assessment of attachment in childhood. Hogg and Vaughan (2008) claimed that longitudinal research can support attachment theories in a more appropriate manner and cite Klohnen and Bera's (1998) study of women who were assessed at three-time points over 31 years and found stable relationship styles were maintained across the study.

1.3.5 Traumagenic Models

Traumagenic Dynamics Model (Finkelhor & Browne, 1985) has four elements that attempt to unpick the mechanisms by which CSA may impact a victim and may be expandable to other forms of victimisation experience. The four elements or 'dynamics' can influence the future behaviours of a victim as they influence how a victim interprets and perceives their experiences which in turn impacts how they view other people, the world around them and ultimately, the self (Browne & Finkelhor, 1986). The four dynamics and their characteristics are outlined in table 1.

Table 1.1: Finkelhor and Browne (1985) Traumagenic Dynamics Model

Dynamic	**Characteristic (and supporting evidence)**
traumatic sexualisation	Dysfunctional attitudes and emotional state regarding sex and sexual self-concept as a result of inappropriate sexual contact, possibly where the victim may be confused by the negative feelings about the abuse and the positive feelings elicited by experiences of being groomed. (cf. Arriola, Louden, Doldren & Fortenberry, 2005; Cantón-Cortés, Cortés & Cantón, 2012; Fergusson, McLeod & Hirwood, 2013)
betrayal	The feelings towards the person who perpetrated the victimisation or failed to protect the victim. (cf. Cantón-Cortés, et al., 2012).
powerlessness	This dynamic is directly related to the victim's bodily autonomy and their sense of control and is pertinent when understanding multiple victimisation experiences. (cf. Cantón-Cortés, et al., 2012; Coffey, Leitenberg, Henning, Turner, & Bennett, 1996;
stigma	Stigma is believed to impact the self-image of the victim, including feelings of guilt and shame. (cf. Coffey et al., 1996; Feiring, Simon, & Cleland, 2009; Feiring, Taska, & Lewis, 2002)

It would appear, according to this theory it is not the victimisation experience per se that is implicated in the negative outcomes for victims, rather it is the four

mechanisms that help with understanding the impact and outcomes of the victimisation experience (Finkelhor & Browne, 1985).

One further traumagenic model that stands out in relation to victimisation is the Traumagenic Neurodevelopmental Model (Read, Perry, Moskowitz & Connolly, 2001). Read et al., (2001) applied this model to schizophrenia and found support for the impact of traumatic events on the developing brain at a structural level, thus, changes contribute to any potential negative outcome via these changes. This theory argues that experiences of traumatic events impacts the structures of the brain at a very fundamental level. If these traumatic events occur during sensitive periods of development, these changes could expose a victim to the risk of changes, similar to abnormalities in brain structure which Read et al. (2001) argue exist in patients diagnosed with schizophrenia.

The biopsychosocial approach supports the diathesis-stress model which argues that the diathesis is a genetic predisposition to negative outcomes. The Traumagenic Neurodevelopmental Model explains how and individual's interaction with the environment, and not just the genetic factors can impact the trajectories of biological brain development. This appears to be relevant across the life-course, the plasticity of the human brain does not halt, people adjust and react as they move through their environment and compensate for all surpluses or deficits they encounter (Rose & Corrigall, 1997). However, research into this area could concentrate on the cumulative impact of multiple traumatic and victimising experiences to examine the severity of the biological changes and the impact of risk and resilience factors.

1.3.6 Normative Male Alexithymia

The concept of Alexithymia, which mean "*without words for emotions*" (Levant, Allen & Lien, 2014. p324), is a sub-clinical paradigm, exampled by a lack of ability by an individual to identify and describe their own emotional responses and so, alexithymia is a "*generalised deficit of interoception*". (Brewer, Cook & Bird, 2016. p1).

Considerable evidence supports the existence of the concept of alexithymia (as measured by the Toronto Alexithymia Scale; TAS-20) and associated emotional difficulties over various populations. Parker, Bagby, Taylor, Endler & Schmitz (1993a) found those that scored higher on the TAS-20 displayed 14% worse ability to recognise facial emotion than those with lower scores. Further, it is argued that higher recorded symptomology of alexithymia is present in people with eating disorders (cf. Nowakowski, McFarlane and Cassin, 2013).

Further, the alexithymia concept has been applied to affect regulation and psychopathology. Salovey and Mayer (1990) proposed that those who score low on emotional intelligence will have associated difficulties in expressing emotion, appraising the emotional state of others, and in using these emotions and feelings to direct their behaviour. Alexithymia has also been associated with the negative experience of suffering ACEs (cf. Swannell et al., 2012; Yates, Gregor, & Haviland, 2012; Thomas, DiLillo, Walsh, & Polusny, 2011; Aust, Härtwig, Heuser, & Bajbouj, 2013). Indeed, research continues to establish if sub-types of alexithymia are discernible (cf. Kajanoja, Scheinin, Karlsson, Karlsson & Karukivi, 2017).

Levant (1995) proposed that alexithymia may occur in the general population as a result of the ways in which boys and men are socialised to the masculine stereotypes that repress emotion. Those close to the child are argued to blunt the expression of emotion in males by suppressing the natural opportunity to demonstrate emotions in such a way that the child becomes normatively alexithymic. The consequences result in a shortfall in the ability to identify and express emotions on a continuum, in line with the context or severity of the treatment they have received in childhood. For example, alexithymic symptoms are likely to be mild in those who are told they are inappropriately expressing their emotions, but more moderate or severe in those who are punished or abused for expressing their emotions. This may even result in symptoms of dissociation for those who suffer the most traumatic events as a means of self-preservation (Levant, Hall & Rankin, 2013). Levant (1995) proposed the Normative Male Alexithymia (NMA) construct to explain these deficiencies in recognising, expressing and explaining these emotions in men. This is critically important because if someone cannot recognise their emotional state and label it accurately it impacts their ability to label themselves as a victim or a survivor and may help to explain why men are less likely to come forward, and to not disclose their victimisation experiences.

1.3.7 Critical Victimology

Critical victimology attempts to combine concepts to inform policy changes that impact victims, victim politicization and the processes involved in social change

(Mawby & Walklate, 1994). Positivist victimology concerns itself more with street crime rather than experiences that happen within the private individuals home (ibid) and examines patterns in victimisation thereby producing victimisation typologies. Dangerously close to this theory is the concept of victim blaming, which has been vigorously challenged by feminists. Victim blaming, or precipitation is understood as the victim being blamed in part or totally for their victimisation experience *(*Fox & Cook, 2011). For example, Bieneck and Krahe (2010) argue that victims of rape are more often blamed for their victimisation experience than victims of robbery. Radical victimology concentrates on victims of any form of oppression such as war, state violence and police force (Quinney, 1972). Core to radical victimology is the belief that the rich and the powerful are beyond the law (Falandysz, 1982) and that the criminal justice system is responsible for the victims and criminals we see (Box, 2002; Reiman, 1979). This is pertinent to the issue of IPV, where the feminist activist agenda has ensured that female victims remain at the forefront of law enforcement priorities. Critical victimology attempts to amalgamate the perspectives to understand research and policy agendas, allowing for a theoretical connection which include the social reality in which victimisation occurs.

1.3.8 Feminism

One of the most contentious theories when discussing interpersonal poly-victimization experiences of men is Feminism. Feminist theory is a socio-cultural perspective which argues that women are oppressed by patriarchal society; a male-

dominated society where the balance of all power resides with men (Bell & Naugle, 2008). Walker (1989) argued feminist theory contends that social roles defined by the culture we live in leads to the victimisation of women which is perpetrated by men. Some support for feminist theories comes from the officially recorded endorsement rates, gathered by judicial systems in cases of IPV yet, as previously outlined, men do not disclose these types of victimisation (Brown, 2004). It is worth noting however, that feminism cannot explain how males are victims other than to say it must be retaliation (Bell & Naugle, 2008) and further, it cannot explain the comparable rates of IPV that exist between heterosexual couples and lesbian couples (Lawson, 2003). Cultural attitudes to victimisation tend to focus on diminutive female victims and burly male aggressors however, as seen in section 1.2, the statistical evidence does not match this cultural attitude.

One very disturbing example can be seen in a poster that was used to promote sexual health and safety among young students. When a woman is raped or sexually assaulted, it is accepted that this is a women's issue, however, for some, there is an inability to conceptualise these same experiences as men's issues too. The poster in Figure 2, was used to highlight the issue of consent created by the Coastal Carolina University and used briefly in 2008 (CCU, 2008).

Figure 1.2. A poster of Jake and Josie that was used by Coastal Carolina University, Campus Assault Resourse Education Support (CARES) Coalition in 2008.

As seen in figure 2, both Jake and Josie were drunk when they hooked up, the American slang term used to describe a casual one-night sexual encounter. Only Josie was considered not capable of consent and so Jake is reported as being held responsible. The poster reinforces the message that only women can be raped by stating "*A woman who is intoxicated cannot give her legal consent for sex, so proceeding under these circumstances is a crime*". At no point is Jake considered as not being capable of giving his consent to their sexual encounter therefore he is labelled the perpetrator, in this case a rapist. This gendered discourse pervades much of the stereotypes and attitudes that surround the experience of victimisation for men.

In conclusion, biological theories appear to blend into developmental theories and attachment theories and assist our knowledge of 'how' victimisation and traumatic experiences may increase the risk of negative psychopathologies. Other socio-

cultural theories appear to attempt to answer the question of 'why' victimisation and traumatic experiences happen to someone. Indeed, it appears that no single theoretical framework can explain and elucidate the full experience of victimisation, rather, due to the multi-faceted nature of interpersonal poly-victimization it is necessary to draw on and assimilate many theories to accommodate the disparity and similarities in the lived experience of all victims.

Section 1.4. Conclusion

1.4.1 Rationale

As seen in 1.1.7, victim support organisations and in particular, feminist dominant organisations were able to secure excellent resources to support female victims of trauma and abuse and this has supported and directed research. This may even be one reason why so much of the research surrounding victimisation experiences is female centric. It has also been levelled at Feminists that they mask male victimisation, however as previously discussed, the issues surrounding male victimisation have been hidden in the shadows almost since time began. That said, Feminism is not mindful of the experience of male victimisation, and indeed, gender should not dictate victimisation status (Cohen, 2014). Feminism does not make victims the priority, it makes female victims and the punishment of male perpetrators the priority and these are vastly different entities.

Unfortunately, this misandrist attitude pervades the gender discourse that surrounds the experience of victimisation when, egalitarianism should be the pervading attitude because all victims deserve support regardless of who the perpetrator is. Given that the limited literature on male victimisation experiences show that in some cases, outcomes for males are more toxic than for females. A research priority should be interpersonal poly-victimization in males with robust and methodologically sound investigation, where male victims are examined in relation to male non-victims (cf. Afifi et al., 2009).

1.4.2 Thesis aims and objectives.

It is hoped that one impact of this thesis will be an emollient effect on the gender discourse that surrounds the victimisation experience by exposing the prevalence and deleterious nature of interpersonal poly-victimization in males. This will begin by offering a gender balanced egalitarian viewpoint, focused on putting the emphasis on the needs of the victim rather than the gender of the victim or the perpetrator. Rates of victimisation in males appear much higher than the official statistics show when examining self-report studies, particularly when examining sexual assault and rape, yet we know males do not disclose these experiences. This is of serious concern, as when the prevalence of male victimisation experiences is underestimated, provision for male victims will not meet the level of need. Further, multiple experiences of victimisation, or poly-victimization is likely to be the norm, therefor it is important to establish profiles of victimisation in men so that gender specific treatment pathways can be developed to meet the specific needs of all victims, supported by social policy and political will, that is no longer gendered in nature. As such, an integral part of the aim of this thesis is to raise awareness of the true prevalence and nature of male victimisation, and establish a baseline, as a starting point for future research.

This thesis will attempt to meet these aims by attempting to answer the following research questions:

1. What empirical evidence exists detailing profiles of the male experience of interpersonal poly-victimization across the life-course in men? (Chapter 2)
2. Do typologies of interpersonal poly-victimization exist in the male population and in what way do they constellate within the population? (Chapter 4)
3. Are specific typologies of interpersonal poly-victimization in males associated with negative mental health outcomes? (Chapter 5)
4. Does physical health status mediate the relationship between interpersonal poly-victimization in males and psychological health status? (Chapter 6)
5. Does Social Support have a mediating or moderating role in the relationship between typologies of interpersonal poly-victimization in males and psychopathology? (Chapter 7)
6. What is the lived experience in their own words, of men who have been victims of interpersonal poly-victimization experiences? (Chapter 8)

Chapter 2:

A systematic literature review of life-course poly-victimization profiles and negative mental health outcomes in a male population

2.1 Introduction

Given the distinct lack of male specific literature in relation to interpersonal poly-victimization across the life-course as detailed in chapter 1, an important first step is to establish the exact nature of available literature in a robustly systematic way. To that end, this chapter will systematically review the available peer-reviewed publications and provide a narrative synthesis of the literature which evidences typologies of interpersonal poly-victimization in male populations as a life-course perspective.

2.1.1 Victimisation and mental health

Traumatic experiences are generally unavoidable across the life-course, Freidman et al. (2007) stated that most people will have experienced one or more traumatic experiences by the time they reach the age of 45. Research has suggested that different types of traumatic experience may be fundamentally different in many ways (Amstadter & Vernon, 2008). For example, victimisation experiences, particularly those of an interpersonal nature, where victims are subject to acts often categorised as criminal that include a perpetrator, such as acts of rape, childhood sexual abuse, or physical assault. These acts also often have elevated endorsement rates of negative mental health outcomes for victims when compared to trauma such as the death of a loved one or a road traffic accident (Smith, Summers, Dillon & Cougle, 2016). The social and economic cost of victimisation and trauma can be colossal, for example, Yang, Miller, Zhang, LeHew, and Peek-Asa (2014) reported that

the total estimated cost of victimisation experiences in Iowa, USA, amounted to $4.7 billion dollars in 2009, further Walby (2005), reported that the estimated total cost of Intimate Partner Violence (IPV) alone in 2001 in England and Wales cost almost £23 billion pounds. Of note, however, while not everyone who experiences a traumatic event develops negative mental health outcomes, evidence has suggested that for some it increases their risk (Alim et al., 2008). Moreover, a wide range of additional factors have been noted as risk or protective factors for poor psychological outcomes after exposure to a traumatic event. A consistent conclusion across studies is that gender is predictive of poorer outcomes, with females being twice as likely to develop PTSD post-trauma compared to males (Tolin & Foa, 2006). Notably however, the literature base is weighted heavily to studies assessing the effect of traumatic exposures on the well-being of females (Breslau, 2009). More recently, researchers have also investigated the cumulative effect of exposure to multiple traumas, concluding that when traumas cumulate or indeed occur concurrently the risk of poor psychological outcomes is increased (Scott-Storey 2011). Thus, there are many factors proposed to be predictive of poor outcomes, including person-centred factors such as gender and factors related to the type and number of traumatic experiences. The current review will specifically examine the literature base as it relates to exposure to, and outcomes of, multiple interpersonal trauma and victimisations in exclusively male samples.

2.1.2 Interpersonal victimisations as a sub-type of trauma

Traumatic experiences are a core feature in the life of every human being. At some point in time almost everyone will experience an event of a traumatic nature (Freidman et al., 2007). However, trauma can also be categorised into different types of event. Notably, experiences of rape and that of road traffic accidents are fundamentally different in how they are experienced both physically and psychologically (Lynch, Jewell, Golding & Kembel, 2017; Mayou, Ehlers & Hobbs, 2000; Sayer et al., 2008). These different types of trauma have different attributes and are cognitively appraised in very different ways by victims. For example, different types of trauma in childhood and the number of traumas a person is exposed to can result in outcomes that are dose-response in nature (Agorastos et al., 2014). Indeed, while emergency first responders showed differences in cognitive appraisal and coping when exposed to a tornado, compared to an explosion in a building (McCammon, Durham, Allison & Williamson, 1988). Fortunately for most of the people who are exposed to a traumatic experience, they cope without developing any negative mental health problems; but for some, the effect of exposure to traumatic experiences can negatively impact mental health outcomes (Cavanagh et al., 2013; Ford, Elhai, Connor & Frueh, 2010).

Traumas such as road traffic accidents are distinctly impersonal in that normally there is no targeting by a perpetrator to victimize another driver. The concept of interpersonal trauma and victimizations, on the other hand, are events of a very personal and often intimate nature to the victims, and these experiences include

rape, childhood neglect or sexual and physical abuse, as well as experiences of assault (Shevlin et al., 2013; Pérez-Fuentes et al., 2013). They are often events that are chronic in nature and have different implications from exposure to natural disasters or accidents. Indeed Widera-wysoczanska and Kuczynska (2010) differentiate non-interpersonal trauma from interpersonal trauma with interpersonal trauma being described as "*repetitive, chronic and complex*" (p.1). For example, in the case of Intimate Partner Violence (IPV), the perpetrator will be known to the victim and may well be a person that the victim has a strong family bond with and someone whom they trust (Finkel & Eckhardt, 2013; Weiss, 2015). Experiences of IPV are often endured over long periods of time and are chronic in nature (Triantafyllou, Wang & North, 2016). Similarly, childhood neglect is usually perpetrated over a period of time by someone who has caring responsibility for the child and with whom the child has an established relationship (Finkelhor, & Hotaling, 1984; Bartlett, Kotake, Fauth & Easterbrooks, 2017).

2.1.3 Interpersonal victimisations over the life-course

Interpersonal victimisations can be forced on anyone at any time; however, research has often focused on investigations of separate life developmental periods. For example, in childhood, these experiences can include physical, sexual or emotional abuse as well as neglect and witnessing domestic violence (Felitti et al., 1998) and these are often known as Adverse Childhood Experiences (ACEs). Examples from adolescence include issues such as dating violence and bullying both in person, and

online (Foshee et al., 2014). Adults may be exposed to intimate partner violence and abuse, as well as parental abuse, assault, mugging and rape (Griffin, 2015; Hall et al., 2013; Holt, 2013) and further, examples in old age can include elder abuse and institutional abuse which are also cause for concern (Burnes et al., 2015).

2.1.4 Theoretical issues in interpersonal victimisations

In relation to the diagnostic criteria for Post-Traumatic Stress Disorder (PTSD), the DSM-5 (APA, 2013) describes a traumatic event as a person having been exposed to one or more of the following: death or threatened death, serious injury either threatened or actual, and actual or threatened sexual violence. This can be directly experienced or witnessed but can also include learning that a close relative or friend has been exposed to a traumatic event; also included, is the indirect persistent exposure in the course of vocational duties, such as the duties of a paramedic (APA, 2013). This definition is the subject of debate. In the case of childhood neglect for example, there may not be a direct or imminent physical threat. Neglect is the withdrawal of physical contact or emotional availability of a care giver and is also considered traumatic. This will often feel like a betrayal that breaks the bonds of trust a child has with the very person or people that are entrusted with their care (Martin, Cromer, DePrince & Freyd, 2013). Interpersonal trauma and victimization experiences are very closely aligned to relationships and family experiences and can be particularly deleterious. Betrayal Trauma Theory (Freyd, 1996, 1999, 2001) focuses very much on the nature of the close relationship between the perpetrator

and the victim and this is further supported by Allen (2001) who suggested that the notion of interpersonal trauma and the theory of Betrayal Trauma resonate very closely. For example, Freyd (1996) argued 'the person doing the betraying is someone the victim cannot afford *not* to trust' (p.11)

Further theories which may add to the understanding of the experiences of interpersonal trauma and victimization have been suggested. It is possible to distinguish the objective event from the subjective interpretation and the response to it. Not everyone who experiences a potentially traumatic event will develop a negative psychological outcome. For example, not all survivors of Childhood Sexual Abuse (CSA) suffer from extreme negative consequences; some are resilient in the face of adversity (Collishaw et al., 2007). Resiliency can be described as an individual who has successfully adapted to adverse life events or circumstances (Masten & Coatsworth, 1998). How a victim perceives a traumatic event will impact how they attribute interpretation to the event, and that person's emotional response will impact on how they cope. All these factors can be examined in the context of developmental theory, most notable is attachment theory. Bowlby (1982) and Ainsworth (1989) postulated that attachment plays a key role in mental health from infancy and right across the developmental life-course. Rutter and O'Connor (1999), stated that attachment is a core theme in coping with traumatic events as it is '*the provision of emotional security and protection against stress'* (p.824). Previous research has consistently found that secure attachment styles are protective against many of the negative consequences of CSA (cf. O'Connor & Elklit, 2008) and insecure attachment has been found to increase the risk of psychopathology (Armour et al.,

2011; Bartholamew, Kwong & Hart, 2001). Secure attachment is associated with increased positive social interactions (Fonagy, 1997). Evolutionary theory explains that attachment is entrenched in the biological needs of a person (Holmes, 2014). Humans have evolved to live in social groups and readily attach to immediate and extended family as well as peers and colleagues. There are a plethora of elements that can cause variations in how attachments form and research into childhood attachment seems to explore how the person with care responsibilities behaves towards the child, the characteristics or temperament of the child, interfamilial influences and the effect of cultural influences on the family.

Freyd (1996) argued that a trauma that involves betrayal can have harmful consequences for the victim. Although Betrayal Trauma Theory (Freyd, 1996) centres on a type of psychogenic amnesia that is a result of an adaptive evolutionary response to being victimised as a child, the notion of interpersonal trauma and victimisation is most often coloured through a lens of betrayal. This type of betrayal has a direct effect on the type of attachment and the relationship the victim has with the perpetrator. Further, how the victim perceives themselves in light of their relationships and their place in the world can be explained in terms of schema theory. The sense of self may be disturbed to the point that their self-esteem is damaged, self-confidence is impacted, and their self-worth is reduced (Janoff-Bulman, 1989; Fennell, 2005). Historically, investigations have shown that when a person is a victim of any interpersonal trauma they are at elevated risk of developing a number of psychopathologies, including PTSD. A plethora of interpersonal victimisation and trauma studies highlight that exposure to traumatic experiences significantly impacts

mental health for many victims (Briere & Scott 2015) and have demonstrated that victims are at increased risk of depression, anxiety and PTSD (Sabina & Straus, 2008; Cuevas, Finkelhor, Clifford, Ormrod, & Turner, 2010) thus interpersonal victimisation and trauma may be implicated in the ontogenesis of psychopathology.

2.1.5 Poly-victimization and re-victimization

A growing body of evidence also shows that victimization experiences rarely happen in isolation. Finklehor et al. (2011), proposed that when children are exposed to a victimization experience, they are often exposed to multiple forms of victimization experiences which he termed poly-victimization. When a child is the victim of childhood sexual abuse it is now recognised that they will potentially also suffer physical abuse and psychological maltreatment as well (Finklehor et al., 2007). Although initially proposed as a way of conceptualising childhood experiences of violence, criminal victimisations and abusive experiences the term poly-victimization has been expanded to include all multiple victimisation experiences that occur in any developmental period across the life-course (Ramsey-Klawsnik & Heisler, 2014). Poly-victimization experiences are reported to be persistent over time (Finklehor, 2011). Further evidence has shown that when someone experiences one type of interpersonal trauma and victimization they are at increased probability of becoming a victim of another similar exposure of the same type or of a different nature at some point later in their lifetime (Scott-Storey, 2011). This re-victimization experience is evident in the literature, victims of childhood sexual abuse are at increased risk of

becoming a victim of adult rape or sexual assault. Ports et al., (2016) found that as endorsement of ACEs increased so too, did the risk of participants being exposed to sexual victimisation experiences.

It is also argued that victims of interpersonal abuse may be more likely to experience complex trauma symptomology, potentially as a result of the repeated and prolonged nature of their experiences. Recent research within the area of stress and trauma related disorders has shown that outcomes of exposure to extended and repeated victimisations may result in complex PTSD, which can be differentiated from PTSD as it is outlined in the DSM-5 (APA, 2013). It is proposed that in the next iteration of the International Classification of Diseases (ICD; World Health Organisation, 1993), the diagnostic criteria for PTSD will be sub-divided to include a diagnostic criterion for complex PTSD. Cloitre, Garvet, Brewin, Bryant and Maercker (2013) exposed three distinct classes of PTSD sufferers, a low symptomatic class, a high PTSD symptomatic group and a third group which was characterised by high PTSD symptomology and high affective dysregulation, negative self-concept and interpersonal problems. Complex PTSD is recognised as a multiplicity of outcomes that include but are not limited to PTSD symptomology, for example children can experience difficulty with attachment, emotional self-regulation, aggression, substance and eating disorders, low self-esteem and shame or guilt (Force, 2005).

Evidence is growing that shows the cumulative effects of experiencing poly-victimization, that is, the experience of multiple victimizations of the same or different type. Similarly, re-victimisation, the exposure to repeated victimisation

experiences sequentially, may operate in a dose response fashion in relation to mental health outcomes. A linear relationship is evident between the number of traumas experienced, and corresponding increases in negative mental health symptomology (Cavanagh et al., 2013; Finklehor et al., 2011; May-CHahal & Cawson 2005). One germane issue with regard to the study of victimisation, is that the vast majority of investigations either concentrate on, or are limited to, a small selection of variables. For example, many concentrate only on one developmental period such as childhood or adolescence, yet more concentrate on just one type of victimisation such as intimate partner violence (IPV) or physical assault. Further still, where the investigation focuses on poly-victimized or re-victimised populations, the vast majority of research is carried out on female only populations or mixed samples; the exclusion of male samples and the resulting lack of representative samples may mask the true prevalence and nature of interpersonal trauma and victimisation. Of further interest, many studies analysing epidemiological survey data use a simple count of victimisation experiences, a technique that is limited both theoretically and methodologically. For example, combining endorsements of the experience of rape with endorsements of the experience of a natural disaster such as a tsunami makes questionable theoretical sense. While both are traumatic experiences, rape is interpersonal in nature as it includes a perpetrator as well as a victim and is a criminal offence while a tsunami is an organic planetary event, not targeted at an individual and beyond the control of any one person. It is not clear from the available research if the outcomes for victims are similar or vastly different. Finklehor et al. (2011) reported that research has shown that victimisation experiences are not distributed among the population at random but constellate for a given portion of individuals.

This would suggest that outcomes may also differentiate for victims of interpersonal poly-victimization and re-victimisation when compared to those exposed to natural disaster.

2.1.6 Assessment of poly-victimization

One person-centred approach that is methodologically more robust and favourable in the investigation on interpersonal trauma and victimisation over a simple count of experiences is to establish classes or profiles of victimisation experiences (Jenness & McLaughlin, 2015). Theoretically, this would accommodate the proposal of Finklehor et al. (2011) that traumatic experiences are, for the most part, concentrated on certain populations rather than being randomly distributed in the population. This has been achieved by using Latent Class Analysis (LCA), Latent Profile Analysis (LPA) and cluster analysis. For example, Cavanagh et al (2013) exposed profiles of Intimate Partner Violence using LCA. These analyses often utilize large epidemiological datasets, grouping or profiling individuals into subtypes. Each profile will contain members who share mutual endorsements on latent or hidden variables so that individuals in each group will have more in common with those within their own profile, than the difference between profiles thus making each profile distinct from the others (Hagenaars & McCutcheon, 2002). These large nationally representative datasets also allow for the examination of prevalence rates at a population level as participants self-report their experiences rather than depending on formal or official disclosures to estimate the number of people who endorse victimisation

experiences. This means there is no reliance on judicial records or clinical samples of victims who present for treatment. These techniques have also been utilised to establish profiles of symptomology of PTSD and the relevant subtypes (Armour, Karstoft & Richardson, 2014) and to examine profiles of childhood poly-victimization (Berzenski & Yates, 2011).

2.1.7 Females, males and the hidden victims

Much research purports that females fair worse when falling victim of traumatic events. For example, Breslau (2009), used a 19-item checklist including a range of trauma from experience of rape, war related trauma and natural disasters and utilised a simple count of event exposure to show evidence that females are more likely to show elevated endorsement of PTSD. This is in direct conflict with the findings of Peterson et al. (2011) who noted that adult male victims of sexual abuse reported greater traumatic stress symptomology than females.

The amalgamation of experiences of war and natural disaster with those of interpersonal violence makes interpretation of these findings very difficult. It is almost impossible to tease out specific victimization information. Research over the last four decades has been driven by a feminist activist agenda (Bumiller, 2009) which has commendably secured attention on the plight of female victims to investigate trauma prevalence and related outcomes. This has led to prolific resources, policy, treatment and interventions that have been designed and developed based on this

research. However, it would appear that this has been at the expense of other victimized populations including minority groups such as the Lesbian, Gay, Bisexual & Transgender community (LGBT).

This in turn leads to a question in the validity of comparing males to females in interpersonal trauma and victimisation research. Other research has shown that male victims experience elevated psychiatric symptomology when compared to females (Gershon et al., 2008). Breslau (2009) however does concur that males endorse higher total rates of abuse and victimization experiences across the life-course when compared to females. Moreover, it has been well established that males are notorious for not disclosing interpersonal trauma and victimisation experiences for a variety of reasons including fear of being blamed (Alaggia, 2005; Preston, 2016). The Theory of Alexithymia, (Lane et al., 2015) where a person is unable to label, understand or acknowledge emotions or actions may also help explain why some male victims do not identify themselves as a victim. In the case of sexual assault and rape, males may not self-identify and acknowledge their experience as an assault or as a crime against them (Pfeffer & Cuevas, 2016; Wilson & Miller, 2015). Indeed, for some male victims of rape who identify with the LGBT community they will blame themselves, feeling that the reason this happened to them is because of their sexuality (Morrison & MacKay, 2000). Of further consideration, many men may experience mild to moderate mental health difficulties (often referred to as 'sub-clinical'), which do not necessary warrant support from health care professionals, but nevertheless impeach daily functioning and quality of life.

Given the factors discussed, it would appear that multiple victimisation experiences are more likely for any victim who reports one single victimisation experience. Further, examining simple counts of victimisation does not expose the intricate nature and interaction of multiple forms of interpersonal poly-victimization therefor, examining how interpersonal poly-victimization experiences cluster utilising superior person-centred methodologies is an important line of enquiry. Indeed, most pertinent is the under-representation of males in the literature examining interpersonal trauma, poly-victimization and re-victimization.

2.1.8 Objective

1.) To systematically examine the extant literature
2.) To establish current knowledge at an epidemiological level of person centred profiles of multiple interpersonal trauma and victimisation in male samples and
3.) To establish levels of the associated negative mental health outcomes.

2.2 Method

This review employed a framework designed to conduct a broad search of the extant literature to address the question "*How does the experience of poly-victimization and re-victimization in the form of multiple interpersonal trauma and victimization endorsements affect the mental health of male victims*". Relevant text, text strings and Medical Subject Headings (MeSH) were used to search eight Social Science and

Biomedical electronic databases from 1st Jan 2006 to the current date (January 2017). Protocols with key word and string terms for multiple interpersonal trauma and victimization as well as mental health outcomes were developed from previous literature (cf. Cuevas, & Rennison, 2016). Hand searches were also conducted in the *Journal of Interpersonal Violence* and the journal *Violence and Abuse* as well as internet search engine *Google Scholar*. Searches were limited to peer reviewed articles published since 1st Jan 2006 and written in English language.

Databases included in the search: PILOTS (*Published International Literature on Traumatic Stress*); AISSA (Applied Social Sciences Index and Abstracts); IBSS (International Biblography of the Social Sciences); SCOPUS (Elsevier); Social Science Database; EMBASE (Elsevier/Biomedical); ISI Web of Science; Medline (Ovid); Hand searches of reference lists in papers that were seen as relevant; Manual search of the 'Journal of Interpersonal Violence' and the journal of 'Violence and Abuse'; Manual search of 'Google Scholar'.

One example of the search strategy used for PILOTS (Published International Literature on Traumatic Stress) database included the search terms (victim* OR "interpersonal trauma" OR poly-victim* OR polyvictim*) AND (mental health OR anxiety OR depress* OR PTSD OR mood OR bipolar) AND (men* OR man* or male* OR boy*) AND (LCA OR LPA OR 'latent class analysis' OR 'latent profile analysis' OR cluster), limited to 'human', 'English language', since 1st Jan 2006.

2.2.1 Selection Criteria

2.2.1.1 Inclusion Criteria

Studies were included if they incorporated a male population over age 18 years, who had endorsed experiencing interpersonal trauma and victimisation events in more than one developmental life period and where profiles of these experiences were assessed.

Exclusion Criteria

Studies were excluded if

- the population under investigation included individuals under 18 years of age;
- non-community level samples such as military veterans;
- vulnerable populations including disabled; clinical or treatment seeking populations;
- institutionalised populations;
- incarcerated populations;
- non-specific trauma;
- interpersonal trauma and victimisations endorsed in only one developmental life period, for example only in childhood.

Studies were also excluded where assessment of victimisation was conducted using a simple count only and in the case of studies investigating populations of both genders, studies with data relating specifically to male experiences could not be extrapolated from the total sample.

2.3 Results

The database searches returned a total of 5051 studies and the manual searches of the two journals and google scholar returned a further 7 studies for consideration (Fig.1.) Based on title alone 268 studies (duplicates removed) were identified for further examination by abstract. A further 89 of these studies were identified for detailed consideration and the full text of each of these was individually assessed. Studies that did not meet the strict standards of one or more of the inclusion criteria were excluded from the review.

As seen in Table 1., the remaining two studies are summarised including relevant empirical findings in relation to the association between profiles of multiple interpersonal trauma and victimisation and negative mental health outcomes. Of these, both relevant studies included nationally representative populations samples, study 1 included 14,477 males and study 2 included 3,032 males. These two studies had data that could be extracted specifically for male populations in the sample and assessed for multiple interpersonal trauma and victimisation experience by latent profiling and both assessed measures of mental health outcomes. Of note, the return of only two studies in the final analysis shows evidence of the unique nature of this research area.

2.3.1 Study characteristics

A total of two studies met the criteria for inclusion in the final review. Both studies utilised secondary data of cross-sectional design. One study used data from the National Epidemiologic Survey on Alcohol and Related Conditions, Wave II (NESARC II; Grant & Kaplin, 2005), a large epidemiological dataset from the USA and the other used data from the Adult Psychiatric Morbidity Survey 2007 (APMS, 2007; McManus, Meltzer, Brugha, Beddington, Jenkins, 2009), a similar large epidemiological dataset from England.

A total of 17,509 male participants were interviewed across both studies with study 1 investigating 14,477 males and study 2 investigating 3,032 male. Interpersonal victimisation and trauma measures were investigated by Latent Class Analysis in both studies and included for example, experiences of lifetime rape, bullying, violence at home and physical abuse. Both studies assessed negative mental health outcomes in relation to victimisation experiences, and these included attempted suicide, self-harm, depression, anxiety and PTSD.

2.3.2 Victimisation experiences

These two papers show some overlap in the assessment of life-course victimisation indicators.

2.3.2.1 Witnessing domestic violence and experiencing violence in the home.

Study 1 examined the endorsement of witnessing domestic violence in childhood (before age 16 years) and Study 2 examined the experience of violence in the home over the lifetime. These were endorsed at of 4.5% and 8.9% respectively.

2.3.2.2 Childhood physical abuse.

Experience of childhood physical abuse was assessed directly in both studies and was endorsed at rates of 3% in study 1 and 5.4% in study 2.

2.3.2.3 Bullying.

Bullying experience over the life-course was assessed in study 2 and in this cohort, showed an endorsement rate of 18.6% of the male population.

2.3.2.4 Sexual assault, molestation and rape.

Study 1 and study 2 examined experiences of lifetime unwanted sexual experiences. Study 1 enquired about lifetime experiences of sexual assault and molestation which was endorsed at a rate of 2.8% while study 2 enquired about lifetime experiences of rape and was endorsed at a rate of 1.1% of the population.

2.3.2.5 Stalking

Study 1 assessed experience of stalking victimisation and showed that 2.7% of this male cohort endorsed having been a victim of stalking.

2.3.2.6 Intimate Partner Violence (IPV) and domestic violence.

IPV and domestic violence are terms that are often interchanged in the literature (Lagdon, Armour & Stringer, 2014). Study 1 asked about experiences of IPV in

adulthood and Study 2 asked about experiences of domestic violence described as violence from a current or previous partner experienced since the respondent was 16 years of age. These victimisation experiences were endorsed at 2.1% and 19.2% respectively,

2.3.2.7 Childhood neglect.

This victimisation experience was examined only in study 1 and was endorsed as having been experienced by 2.7% of the population.

2.3.2.8 Physical assault.

Adult physical assault experiences were only enquired about in study 1 and were endorsed by 12% of the study population.

2.3.2.9 Mugged, held up or threatened with a weapon.

Study 1 enquired about lifetime experience of being mugged, held up or experiencing being threatened with a weapon and this was endorsed by 16.4% of the population.

2.3.3 Assessment of poly-victimization by Latent Class Analysis (LCA)

When subjected to LCA, study 1 exposed a 4 class solution while study 2 exposed a 3 class solution, this may be explained in terms of the indicators that were assessed in the individual studies and the populations under investigation. Both studies exposed a large normative class in the analysis characterised by low or no endorsement. In study 1 this was 81.4% of the population and in study 2 this was 37.8%. That shows

that a large percentage of the population, both male and female do not experience interpersonal victimisation and abuse across their life-course. In study 2 a class was exposed that endorsed elevated levels of bullying and domestic abuse. Study 1 exposed a class of adult only victimisation experiences including physical assault and mugging. Finally, both studies exposed classes of life-course poly-victimization as assessed by the indicators available for both cohorts. Study 2 exposed one life-course polyvictimized class showing elevated rates of endorsement for experience of rape, bullying, violence in the home, physical abuse under 16 years of age and domestic violence. Study 1 exposed two classes of life-course poly-victimization. One class showed a moderately high level of endorsement across the life-course on all indicators of victimization: childhood physical abuse, childhood neglect and witnessing domestic violence in childhood, adult sexual assault, Intimate partner violence, adult physical assault, stalking and mugging. The second class of poly-victimization in study 1 followed a similar graphical representation however it had severely increased rates of endorsement of almost all indicators across all victimisation experiences except for the witnessing of domestic violence which was high in both poly-victimization classes.

2.3.4 Mental health outcomes.

2.3.4.1 Lifetime suicide attempt.

Study 2 assessed lifetime history of a suicide attempt. Results showed elevated endorsement in the male population categorised in the class that endorsed high levels of bullying and domestic violence, OR=6.70(95%CI=1.18-36.82; p<0.001). This was also shown in the poly-victimized class exposed in study 2, categorised by high

endorsement across all indicators in a dose response fashion OR=28.98(95%CI=7.01-88.45;*p*<0.001).

2.3.4.2 Non-Suicidal Self-Injury (NSSI)

Study 2 assessed lifetime history of NSSI, a disorder once categorised as part of the diagnostic criteria for Borderline Personality disorder but now classified as an independent disorder in the DSM-5 and includes the deliberate act of causing physical harm, injury or pain to oneself without intending suicide. This showed elevated odds of endorsement for the males in the class categorized by lifetime experiences of bullying and domestic violence OR=3.63(95%CI=1.30-27.87;*p*<0.001). For the males in the class categorised as poly-victimized, an elevated odds ratio showed increased odds of exhibiting NSSI behaviours OR=52.77(95%CI=14.8-96.51;*p*<0.001)

2.3.4.3 PTSD

PTSD was the only outcome that was assessed in both study 1 and study 2. Study 1 found and elevated risk level of PTSD in all latent classes of victimisation, with increased risk as corresponding to increase in endorsement in victimisation in a dose response fashion. For males in study 1's moderate poly-victimization class results show OR=4.37(CI95%3.286-5.826;*p*<0.001). For study 1 the high poly-victimization endorsement class results show OR=12.56(95%CI 9.108-17.325;*p*<0.001). In study 2, the male only portion of the assessed population also showed elevated risk for 2 factors of PTSD symptomology in the poly-victimised class for re-experiencing OR=1.45(95%CI=0.84-2.51;*p*<0.05) and arousal OR=5.57(95%CI=2.5-12.41;*p*<0.001).

2.3.4.4 Further negative mental health outcomes

Study 1 assessed five further negative mental health outcomes: General Anxiety Disorder (GAD), Depressive disorder, Manic disorder, Panic disorder and Social phobia. Assessment was based on a lifetime diagnosis and all latent classes of poly-victimization and showed elevated odds of endorsement of diagnosis of all disorders in a dose response fashion with ORs ranging from 2.0 to 8.07 across the poly-victimization classes.

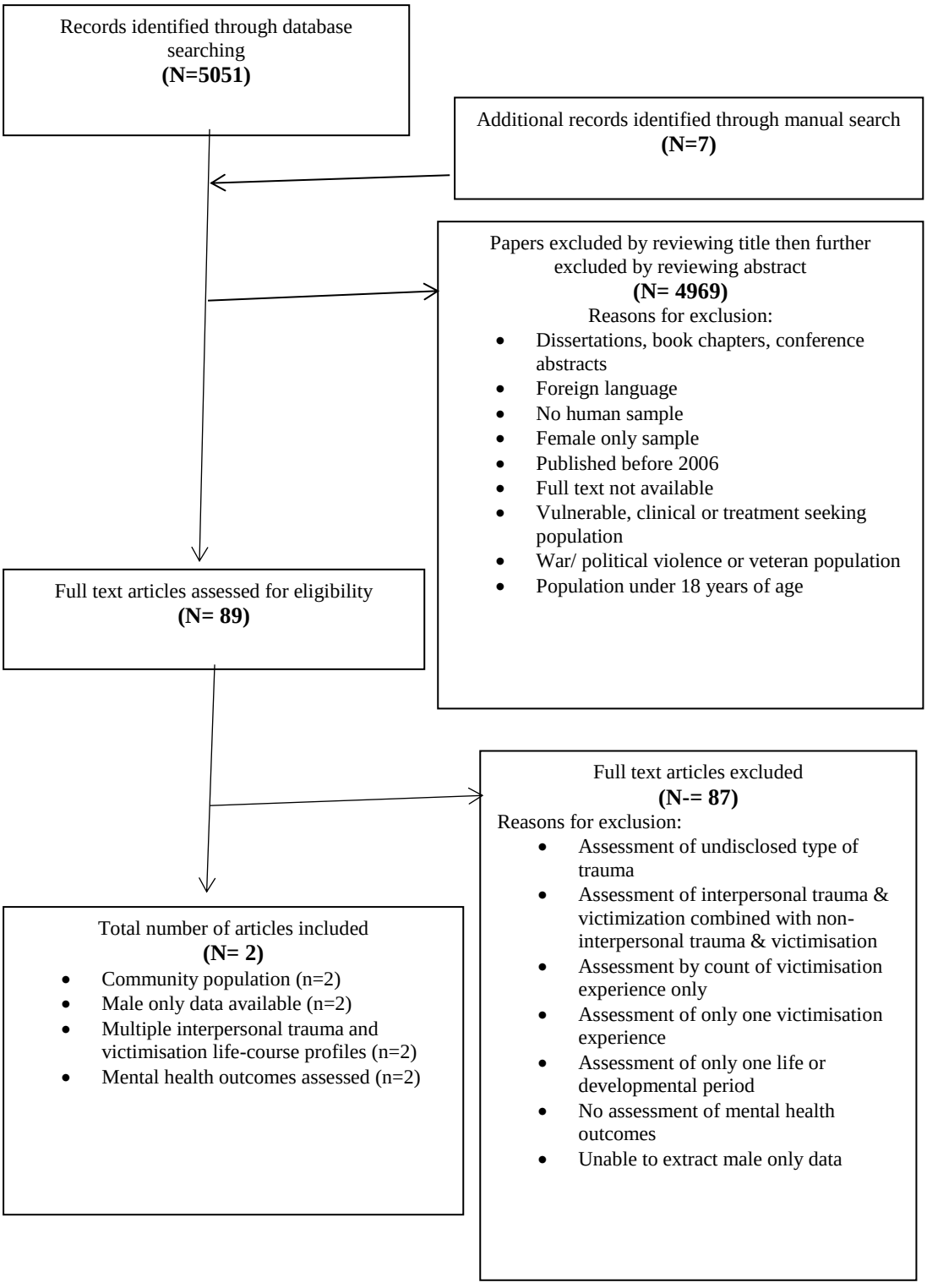


Fig.1. Flow chart of published papers selected and excluded from the initial online database and hand searches to the publications included in the review.

Table 1. Studies included in the review which explore the association between profiles of multiple interpersonal trauma & victimization experiences and negative mental health outcomes.

	Study 1	Study 2
Citation	Burns, C. R., Lagdon, S., Boyda, D., & Armour, C. (2016). Interpersonal poly-victimization and mental health in males. *Journal of anxiety disorders*, *40*, 75-82.	Dhingra, K., Boduszek, D., & Sharratt, K. (2015). Victimization Profiles, Non-Suicidal Self-Injury, Suicide Attempt, and Post-Traumatic Stress Disorder Symptomology Application of Latent Class Analysis. *Journal of interpersonal violence*, 0886260515576967.
Dataset	National Epidemiologic Survey on Alcohol and Related Conditions Wave 2 (NESARC II)	Adult Psychiatric Morbidity Survey 2007 (APMS 2007)
Male population	14,477	3,032
Assessed victimisation variables and endorsement	Physical abuse Neglect Witness to domestic violence in childhood Sexual assault Intimate partner violence Physical assault Stalked Mugged/ held up/ threatened with a weapon	Lifetime rape Lifetime bullying Lifetime violence in the home Physical abuse Domestic violence
Exposed profiles	Class 1: normative Class 2: life-course poly-victimization with high WDVC Class 3: adult multiple victimisation Class 4: high poly-victimization	Class 1: high poly-victimization Class 2: bullying and domestic violence Class 3: Normative
Assessed mental health variables	General Anxiety Disorder Depressive disorder Manic disorder Panic disorder Social phobia PTSD	Suicide Non-suicidal self-injury PTSD factor 1 PTSD factor 2

2.4 Discussion

The aim of this review was to synthesize the current knowledge of multiple interpersonal trauma and victimizations in male populations using person centred classifications, and the relationship to potential negative mental health outcomes. The results of this review show only two studies met the criteria for inclusion. This would confirm that this area of research is grossly neglected and in need of urgent attention. Study 1 and Study 2 evidenced distinct patterns of poly-victimization in male samples including a normative or non-victimized class and a poly-victimized class. Also evident is when males are subject to multiple interpersonal trauma and victimisation across the life-course in the form of poly-victimization and re-victimisation. There is strong evidence to suggest the cumulative effects result in elevated odds of endorsement of a multiplicity of negative mental health outcomes including more than six times more likely to attempt suicide and over three times more likely to self-injure. Both studies assessed PTSD symptomology. Study 1 showed elevated endorsement of 12 times that of the non-victimized class while study 2 showed increased odds in two factors of PTSD independently assessed, re-experiencing showed one and a half times the likelihood of being endorsed while arousal showed over five and a half times more likely when compared to the normative class.

The cumulative effects of interpersonal poly-victimization and re-victimization have been shown to have a deleterious effect on mental health outcomes in a dose response fashion. In particular, males who have a profile of poly-victimization that

includes sexual assault have been reported as having elevated odds of suffering not just PTSD symptomology but elevated odds of other comorbid mental health issues such as mood disorders, anxiety and substance disorders (Molnar, Buka & Kessler, 2001). The limited availability of data examining profiles of interpersonal trauma and victimizations over the life-course relating to male specific populations and the associations with negative mental health outcomes shows a large gap in the literature that requires urgent attention.

Results of this review should be considered in light of the strengths and weaknesses of the literature that is included. One major strength, the use of person-centred analysis such as Latent Class Analysis, Latent Profile Analysis or Cluster analysis allows for the true nature and prevalence of poly-victimization to be exposed and understood as each victimization experience is examined in relation to other interpersonal trauma and victimization experiences. This is a pertinent line of enquiry given the strength of evidence that supports one victimisation event is rarely experienced as a standalone event (Finklehor et al., 2007; Scott-Storey, 2011; Turner, Shattuck, Finkelhor & Hamby, 2016). Further, the cumulative nature of exposure to multiple traumatic experiences is known to negatively impact psychological consequences in a dose response manner, with an increase in victimisations experienced increasing the risk of endorsing elevated mental health symptomology and psychiatric diagnoses (Shevlin, Houston, Dorathy & Adamson, 2008).

Of note, the use of large epidemiological datasets also allows for a more robust estimate of prevalence rates of victimization to be established and investigated, and

this goes some way to eliminating some of the issues with regard to under-reporting and non-disclosure. Hidden victimisations appear to be endemic within male populations for a variety of reasons including embarrassment or fear of being seen as 'unmanly' (Brown, 2004. p.95).

Limitations also exist with the use of large secondary datasets as often there is no available information on the chronicity and severity of the victimization experiences. This may impact the results as little evidence exists to suggest that all victimization experiences weigh the same for all individuals. Indeed, Pfeffer and Cuevas (2016) advocated that since susceptibility to interpersonal victimization is different between differing populations that blindly applying policies and interventions that have been developed from mainstream research is a major disadvantage. This is of particular relevance to male victims as treatment options, interventions and support mechanisms are based on the research carried out to date. The vast majority of this research is based on female populations therefore it seems pertinent that gender specific research is carried out and gender specific treatment, support and policies be developed.

This is no more evident than when examining provision for victims who present with experiences of Intimate Partner Violence and domestic abuse. In the UK, Women's Aid is a well-established national support mechanism, focusing on female victims who amount to two thirds of the victims who present at judicial level (Harwin, 2006). However, the remaining one third of IPV and domestic violence victims who enter the judicial system are males (Brown, 2004). Comparable support for male victims is

severely and disproportionately under-provisioned given that evidence suggests that females, especially young females initiate Intimate Partner Violence more frequently than males do (Capaldi, Kim, & Shortt, 2004; Fergusson, Horwood, & Ridder, 2005; O'Leary & Slep, 2006), potentially even by as much as twice the rate (Grahan-Kevan & Archer, 2005).

Additionally, Whitaker, Haileyesus, Swahn, and Saltzman (2007) investigated prevalence rates of IPV in young American adults and found that half (49.7%) of the relationships that were reported as abusive were bi-directional; the abuse manifested directionally both from and against both partners and further, where abuse was not mutually instigated within the relationship, women were found to be the perpetrators of the abuse in over 70% of the relationships.

Notably, Cocker and Scott (2006) stated the proportion of boys entering the state care system are proportionately higher than girls, indeed 56% are male with physical abuse and/or neglect the most often cited reasons. Given the strength of evidence that shows where a person is a victim of one type of victimization they are more likely to suffer further or subsequent victimization (Finklehor et al., 2007; Higgins and McCabe, 2001; Pears, Kim, & Fisher, 2008), it is important that these vulnerable populations receive target specific treatment, intervention and support to meet their gender specific needs.

There are a number of methodological limitations with regard to the studies included in this review. Of particular note is the variability in the definitions and parameters

used. For example, the phrase Domestic Violence can have multiple definitions and is often used interchangeably with the term Intimate Partner Violence (IPV). In some circumstances these two terms can mean the same thing however Domestic violence and abuse can also mean sibling abuse and/ or child to parent violence making comparisons particularly difficult, thereby limiting the generalizability of results. Indeed study 2 showed the highest rate of endorsement across all victimisation indicators for experiencing domestic violence with 19.2% of the population endorsing having been exposed to this type of victimisation while study 1 showed 2.1% having endorsed IPV victimisation. The discrepancy in distinct definitions may explain the disparity.

2.4.1 Implications and future directions.

Future research in male only populations should help redress the balance of knowledge about the effects of interpersonal trauma and poly-victimization as they relate specifically to male victims. The current focus on female only or mixed sample investigations is not sufficient to elucidate the nuances of male specific needs and experiences. A standardised theory of multiple interpersonal trauma and victimization would set a theoretical framework to allow research that is compatible and comparable. Research that investigates the negative physical or psychological outcomes of interpersonal trauma and victimization while simultaneously examining experiences of car crashes or natural disasters does not appear to be methodologically sound. A standardised theory will allow for new treatment options

to be developed and fully assessed that are grounded in theoretical perspectives and targeted specifically at male populations such as early interventions to increase coping skills or teach and nurture improvements in traits such as distress tolerance along with treatment options post-victimization that meet the needs of this specific population.

Standardizing output measures would be advantageous to allow for the full nature of victimization experiences on both physical and psychological health to be truly evaluated. In the current review study 1 examined diagnostic endorsement according to the DSM IV (APA, 2013) for several negative mental health outcomes while study 2 included self-reports of lifetime PTSD symptomology, suicide attempts and NSSI, while diagnostic criteria are crucially important, it is equally important to consider victims who are suffering from sub clinical symptomology of negative mental health outcomes especially in populations where unacknowledged victims are prevalent. However future research, whilst extremely important must accomplish the need to gather empirical evidence without placing too heavy a burden on people who have been subject to victimisation experiences and may already be vulnerable.

2.4.2 Conclusion

Exposure to interpersonal trauma has no systematic model of classification, therefore criteria employed in different studies to assess interpersonal trauma differs depending on the preferences and choices of the authors. As a result, making

comparisons of different studies is fraught with difficulty. This is evidenced in the current review as neither study included mental health indicators to measures the same outcome variables in the same way. Taken as a whole, both studies showed clear evidence of distinct profiles of multiple interpersonal trauma and victimization in male populations, and these poly-victimized profiles showed elevated endorsement of mental health difficulties and outcomes. This suggests that males who are victims of multiple interpersonal trauma and victimization are vulnerable to multiple negative mental health outcomes including PTSD. This is sufficient evidence to expose a gap in the literature that can only be overcome by further research in the area which is needed to inform policy, prevent and reduce the risk of victimization, poly-victimization and re-victimisation experiences and develop targeted treatment options and support interventions.

Chapter 3:

The National Epidemiological Survey on Alcohol and Related Conditions III and the Methodology employed in this Thesis

3.1 Introduction

As outlined in Chapter 2, existing datasets were utilised for the purposes of secondary analyses to expose latent classes of poly-victimization and psychopathology. In order to meet the aims of this thesis, several online searches were carried out to identify the most appropriate and comprehensive dataset with suitable variables to investigate the relationship between interpersonal poly-victimization and negative mental health outcomes.

3.1.1 Data Selection

The rationale and research aims of this thesis have been comprehensively outlined in Chapter 1. The National Epidemiological Survey on Alcohol and Related Conditions, wave III (NESARC III) was identified as the most suitable data to address the aims and objectives of the current thesis. Variables were inspected and demonstrated availability of information on endorsements of interpersonal victimisation experiences and responses regarding diagnostic criteria of various psychopathologies in line with the Diagnostic and Statistical Manual of Mental Disorders, 5th ed (DSM-5; American Psychiatric Association (APA), 2013). An analytic plan was devised to answer the main research questions, as outlined in Chapter 1 and an application was made to gain access to the data which is available only via the National Institute on Alcohol Abuse and Alcoholism (NIAAA) under a limited data access policy.

- This chapter will detail the rationale behind the selection of the NESARC III (Grant, et al., 2015) as the survey dataset of choice for the secondary analysis of the dataset for this programme of research.
- It will also describe in detail the NESARC III sampling frame and survey design.
- Details of the data collection will be outlined followed by key characteristics of the instruments utilised in the analysis of this thesis including the Alcohol Use Disorder and Associated Interview Schedule 5 (AUDADIS-5; Grant et al., 2015), Short-Form Health Survey (SF12-V2; Ware, Kosinski & Keller, 1996), and the Interpersonal Support Evaluation List – 12 item version (ISEL-12; Cohen, Mermelstein, Kamarck & Hoberman, 1985).
- The final part of this chapter will detail the process by which access was granted by the NIAAA to the NESARC III data.

3.1.2 The NESARC III

Previous waves of the NESARC have been conducted in the United States of America as, the first in 2001-2002 and the second in 2004-2005. The NESARC III, being the third in this specific range, was conducted as a stand-alone cross-sectional survey and saw data collection conducted from April 2012 to June 2013, with a distinct cohort (Grant et al, 2015). The NESARC III survey was directed by the Laboratory of Epidemiology and Biometry (LEB), Division of Clinical and Biological Research. All fieldwork was carried out by Westat with funding provided by the National Institute of Health (NIH) through the NIAAA. The focus of the NESARC data is to collect data

from the general population to provide estimates as to the prevalence and consequences of Alcohol Use Disorders. This latest edition of the NESARC included a collection of saliva for DNA analysis. This thesis utilises data from the NESARC III and as such, all references to the NESARC refer to the data collected from 2012 to 2013 unless stated otherwise.

Interviewers were extensively trained in all aspects and protocols of data collection, saliva sample collection and computer assisted interviewing in relation to the NESARC III study. This was achieved with a home study pack that was provided to all interviewers and once completed, interviewers attended further face-to-face training.

3.1.3 NESARC III Sample

The NESARC III was designed to be nationally representative of the non-institutionalised civilian, adult population of age 18 years and older in the United States of America, including Alaska and Hawaii (Grant, et al., 2015). Individuals who reside in households, including military veterans and serving personnel and people living in multiple occupancy dwellings such as college and workers dormitories were included in the sampling frame. Military personnel on active duty were excluded from the data collection. Data was gathered from 36,309 adult individuals, of which 20,447 identified as female and 15,862 identified as male. A computer assisted personal interview technique (CAPI) was, utilise to carry out face-to-face interviews.

3.1.4 NESARC III sampling frame and survey design

3.1.4.1 Sampling frame

A multi-stage stratified sample design was utilised by the NIAAA to randomly select participants. Primary Sampling Units (PSUs) were created across all counties in the USA giving a total of 2,349 units. From this, Secondary Sampling Units (SSUs) were generated. The third stage in the sampling procedure, saw the selection of 71,052 households from within the SSUs designated. The final stage in the sampling was the selection of eligible person(s) from within the household. Where households contained four or more persons who were considered eligible, two were chosen at random. Eligibility criteria for selection included:

1.) 18 years of age or older;

2.) Not currently on military active service or deployment

The NESARC III oversampled Asian, Black and Hispanic minority populations, which was accounted for by weighting the data. Missing data was imputed by one of two methods: (1) either by assignment where a response was deduced from other answers the participant had given, or (2) by a hot deck technique, were a response was matched to a similar respondent who was randomly chosen (Grant et al., 2015).

3.1.4.2 Survey design

The NESARC III utilised a structured diagnostic interview instrument, the Alcohol Use Disorder and Associated Disabilities Interview Schedule aligned to the diagnostic criteria of the DSM-5 (AUDADIS-5; APA, 2013), as the instrument through which the

survey is delivered. The AUDADIS-5 queried background information for each respondent including age, current marital status and highest education level attained as well as experiences of traumatic events. Further, questions on the respondent's lifestyle such as drinking, drug and nicotine consumption and utilisation were included. Questions were also included that queried psychopathology such as mood and anxiety disorders and information on any medical complaints. The final element of the interview process was for the interviewers to collect a saliva sample from the respondent.

3.2 Measures

3.2.1 AUDADIS-5 and the DSM-5 Diagnostic Criteria of Psychopathology

The AUDADIS-5 was developed by the NIAAA specifically for use in the NESARC III data collection process (Grant et al., 2015). As a fully structured interview, the AUDADIS-5 was designed to gather information on the use of alcohol within the population of the United States and any associated health concerns. As part of the data collection the AUDADIS-5 queries features that can be utilised to evaluate the potential for negative mental health disorders in accordance with the diagnostic criteria delineated in the DSM-5 (APA, 2013).

The DSM-5 was published in 2013 and is the current edition of the Diagnostic and Statistical Manual delineating the most current diagnostic criteria for the diagnosis of psychopathologies. The AUDADIS-5 queries both past year and lifetime DSM-5

diagnosis and contains several screening questions that are specific indicators of psychopathology in line with the DSM-5 including:

- alcohol and tobacco use disorders;
- nine categories of drug use disorders (sedatives, opiates (not heroin), cannabis, cocaine/crack cocaine, stimulants, hallucinogens, club drugs, inhalants/solvents and heroin);
- mood and anxiety disorders (major depression, dysthymia, manic and hypomanic episodes, panic disorder, agoraphobia, social and specific phobia and generalised anxiety disorder);
- personality disorders (borderline personality disorder, schizotypal personality disorder and antisocial personality disorder);
- posttraumatic stress disorder;
- eating disorders (anorexia nervosa, bulimia nervosa and binge-eating disorder)

A positive endorsement of the screening questions allows for further investigation of symptomology of specific psychopathologies both over the last 12 months and across their lifetime, other than personality disorders which are lifetime diagnosis only. Where respondents met the required criteria for diagnosis, they are considered to have a positive endorsement of that specific psychopathology in line with the DSM-5. DSM-5 criteria for each disorder considered in the NESARC III is listed in Appendix 1.

The AUDADIS-5 also queries family histories of drug and alcohol use and disorders and if the respondent has ever sought treatment for drug or alcohol use problems. Statistical algorithms were utilised to compute if responses met the diagnostic criteria for the specific disorders assessed. Reliability analysis shows fair to excellent results for the AUDADIS-5 under test re-test conditions (Grant et al., 2015).

3.2.2 Demographic Characteristics

The AUDADIS-5 queried extensive topics within the interview schedule including:

- age at last birthday in years;
- race or ethnicity of the respondent;
- receipt of food stamps (previous year and lifetime);
- current marital status

Demographic variables relevant to each chapter will be discussed in detail throughout this thesis. While many suitable demographic variables are available in the dataset for inclusion in the analysis, parsimony and appropriateness was considered for each example. For example, occupational class and educational attainment were available and could have been considered as indicative of SES however, the choice of 'receipt of food stamps' as an indication of SES was made given that, for this population only those in dire financial need receive such support. Further, educational attainment for example, does not guarantee that a person is in gainful employment.

3.2.3 Interpersonal victimization indicators

Within the AUDADIS-5 survey, a module is included containing questions on the experience of traumatic and abusive events experienced by the respondent. Specific statements were made about childhood physical and psychological victimisation experiences including:

- how often you went hungry;
- did not get medical treatment when necessary;
- psychological abuse including being insulted or sworn at;
- being hit or beat by an adult before the age of 18 years;

Sexual experiences prior to age 18 years, instigated by an adult, were queried in four further questions including:

- sexual touch forced on the respondent;
- being forced to watch an adult sexually touch themselves;
- attempted intercourse;
- actual intercourse

Respondents were asked to rate their experiences on a five-point Likert scale from (1) never or never true to (5) always or always true. Adult experiences of victimisation were queried in a different manner. Respondents were asked to examine a flashcard with a list of possible experiences and asked to endorse a maximum of four experiences, where more than four experiences could be endorsed participants were

instructed to endorse the four events they felt were the most severe. The flashcard used in the NESARC III data collection in available in appendix 2.

3.2.4 Physical and Mental Functioning Summary Scales: SF12-V2

The Physical and Mental Functioning Summary Scales are a self-report measure of how a person perceives their own physical and mental wellbeing. Developed initially by Quality Metric Incorporated as a 36-item Health Survey (SF-36; Ware, 1998; Ware & Sherbourne, 1992) to provide a free, psychometrically valid measure of health status that is comparable over populations, it was discovered that two factors accounted for 80-85% of the variance in the SF-36 scales, thus, the short version physical and mental health summary scales, the SF-12 was developed with the aim of providing a very short, quick and easily accessible measure that could yield high accuracy to the SF-36, could fit on a single page and be administered in under two minutes (Ware & Gandek, 1998).

The SF-12v2 is based on eight concepts assessed in the SF-36; 1) physical functioning (PF), 2) role limitations due to physical health problems (RP), 3) bodily pain (BP), 4) general health (GH), 5) vitality (VT), 6) social functioning (SF), 7) role limitations due to emotional problems (RE) and 8) mental health (MH) (Ware et al., 1994).

Now in its second iteration, the SF-12v2 is divided into two scales, the Physical Composite Scale (PCS-12) consisting of questions 1(GH), 2 & 3 (PF), 4 & 5 (RP), and

12 (BP), and the Mental Composite Scale (MCS-12) consisting of questions 6 & 7 (RE), 8 & 10 (MH), 9 (VT), and 11 (SF), (Ware, Keller & Kosinski, 1994) see appendix 3.

These two sub-scales are weighted and can then be summed to give an overall assessment of self-reported health status. The physical and mental summary scales are standardised by norm-based scores to the USA population which allow for comparison over various populations with a standardised mean score of 50 and one standard deviation (1sd) being 10, allowing the scale scores to be compared to each other and across general populations and clinical populations. The SF-12v2 has been widely used with reliability and validity reported to be moderate to excellent in both general and clinical populations, and differing race and ethnically diverse groups with Cronbach's Alpha reported in the majority of studies at over 0.70 (Gandek et al., 1998; Luo et al., 2003; Resnick & Nahm, 2001; Salyers, Bosworth, Swanson, Lamb-Pagone, Osher, 2000; Ware et al., 1996).

This thesis will utilise the Physical Component Summary Scale (PCS-12) of the SF-12v2 in a later chapter.

3.2.5 Interpersonal Support Evaluation List – 12 item version: ISEL-12

The Interpersonal Support Evaluation List (Cohen & Hoberman, 1983) assesses respondents perceived interpersonal social support. The 12-item short version, the ISEL-12 (Cohen et al., 1985) was developed from the traditional 40-item version of

the ISEL (Cohen & Hoberman, 1983) and is utilised via the AUDADIS-5 in the NESARC III data collection. The ISEL-12 exposes three subscales: 1.) appraisal, the perceived availability of advice or guidance; 2.) belonging, the perceived availability of empathy or concern and 3.) tangible, the perceived availability of help and assistance, for example financial aid (Cohen et al., 1985). All answers to the ISEL-12 questions range on a four-point scale from 0) definitely false to 4) definitely true with items #3,4,5,6,9 and 10 reverse scored (see appendix 4). This gives a total potential sum score in the NESARC III of 0 to 36, where a lower score donates less perceived interpersonal social support and a higher score donates more perceived interpersonal social support.

Reliability and validity of the ISEL-12 is limited, however the few studies that have been conducted show moderate to high results over English and Spanish populations, and a Korean population (Merz et al, 2014; Kim, Lee, Kim & Lee, 2012).

3.3 NIAAA limited data access policy

The NESARC III data is only available through a limited data access policy by application to the NIAAA. This is achieved by completing and submitting a Data Use Agreement (DUA, see appendix 5) and a completed Institutional Review Board (IRB) application (see appendix 6). An ethics application was completed and submitted to Ulster University Ethics Review board outlining the details and analysis intended for this thesis and was passed. Limited data requires that all personal identifiers are removed from the dataset before access is granted, for the protection, anonymity

and confidentiality of all participants included in the dataset. The framework employed by the NIAAA regarding information redacted or deleted is outlined in appendix 5.

A completed application was made to the NIAAA for access to the NESARC III data and access was granted via email with a download like to the data. The NESARC III data was accessed and stored on a password protected Ulster University computer for analysis.

3.4 Data Analysis

The statistical procedures employed in the empirical chapters to meet the aims and objectives of this thesis, are individually detailed in each chapter. Given the complex design of the NESARC III sample, several points must be outlined here.

All data was prepared in SPSS v23 and analysis was carried out in MPlus v7.4 (Muthen & Muthen, 1998-2016). As described above, the NESARC III contains a weight variable to account for over sampling of Asian, Black and Hispanic minority populations that allows for generalisation to the USA population and is utilised in all analysis in the current thesis. The inclusion of a weight variable prohibits the use of the bootstrapping techniques and as such, when appropriate, a Monte Carlo integration analysis is utilised to compensate (Preacher & Selig, 2012).

3.5 Conclusion

The current chapter provides a summary of the NESARC III survey and has introduced elements of the sampling frame and particulars that will be utilised throughout this thesis. The following chapter commences the empirical investigation of the thesis questions with a latent class analysis of the typologies of interpersonal poly-victimization in the male subsample of the NESARC III.

Chapter 4:

A Latent Class Analysis of Interpersonal Poly-victimization: Identifying Abuse Typologies in a Male Population[1]

[1] This chapter, combined with Chapter 5 was summarised and presented at the Administrative Data Research Network International Conference, Queens University Belfast, 21-22 June 2018.

4.1 Introduction

A number of research questions to be addressed in this thesis were outlined in Chapter 1, and the rationale behind each was discussed in detail. The first of those questions will be addressed in the current chapter: Do latent or hidden groups of interpersonal poly-victimization victims constellate within the male population? To answer this question, data from the male sub-sample of the NESARC III will be analysed by Latent Class Analysis and the results from this chapter will be utilised in further chapters.

Interpersonal poly-victimization is of considerable societal concern. Many empirical investigations have evidenced that when a person experiences traumatic or victimising events, this can lead to a wide range of negative mental health outcomes, for example psychosis, anxiety, depression and PTSD (Freeman & Fowler, 2009; Yehuda, Halligan & Bierer, 2001). Indeed, in a population-based survey of over 2000 people, conducted by Springer, Sheridan, Kuo, and Carnes (2007) concluded that physical abuse in childhood increased the likelihood that individuals would report anxiety, depression, and other physical complaints decades into their adult lives. Interpersonal poly-victimization experiences are specific types of multiple personal attacks, often chronic in nature and deliberately inflicted on the victim by a perpetrator who is often known to them. The victim may have an attachment relationship to the perpetrator, and that relationship may have been manipulated as part of the victimisation experience. For example, in cases of childhood sexual abuse the perpetrator will often be known to the victim, who is then groomed for

compliance; in cases of intimate partner violence, the perpetrator is the victim's partner, the person who is expected to love and protect the victim.

4.1.1 Co-occurring abuse types.

Traditionally research in the area of interpersonal victimisation such as IPV (Cavanagh et al., 2013) or childhood sexual abuse (Mullen & Fergusson, 1999) has concentrated on one particular type of victimisation, or one particular developmental period. This is despite the growing body of evidence that victimisation experiences rarely occur in isolation (Finkelhor et al., 2007). Further, multiple experiences, which can be chronic in nature have been shown to have a cumulative impact on multiple mental health outcomes (Scott-Storey, 2011). Higgins and McCabe (2001) reported that while some studies appear to consider the multiple co-occurring abuse types; the focus of investigations is on one type of abuse only (cf. Milner & Crouch, 1993). This is an important issue in the investigation of trauma and victimisation experiences as concentrating on singular abuse types could lead to the overestimation of the impact of that type of abuse despite the fact that other types of abuse may have occurred and that there may be cumulative effects on well-being. For example, a study focusing on the mental health outcomes for adults who have survived childhood sexual abuse may not consider that any current mental health state may be attributable not only to childhood sexual abuse experiences but also to 1) co-occurring experiences during this time such as psychological maltreatment and / or 2) subsequent victimisation experiences in adolescence and adulthood. In

summary, interpersonal victimisation can co-occur during a single developmental period and/or across the life course.

4.1.2 Interpersonal victimisation

It is also important to note that the study of poly-traumatisation can be further complicated by the combination of all possible traumatic experiences rather than the examination of discreet trauma categories; namely interpersonal traumas vs. non-interpersonal traumas. Indeed, interpersonal victimisation experiences have, in the past, been combined with experiences of natural disaster and war (cf. Storr, Ialongo, Anthony & Breslau, 2007). Much of this research is limited in the sense that war and natural disaster are not necessarily part of the everyday lived experience of the majority of the population and both are umbrella terms for an array of traumatising experiences. War reflects experiences such as armed combat, bereavement, and witnessing atrocities; natural disasters reflect experiences such as the loss of loved ones, the loss of property and possessions, physical injury, and displacement.

4.1.3 The cumulative impact of poly-victimization

All types of trauma or victimisation may indeed result in a general elevation in negative outcomes for many who experience them (Pears, Kim & Fisher, 2008). Given that co-occurring abuse and victimisation experiences or poly-victimization are widely reported (Finkelhor et al., 2007), it may be correct to assume that various

amalgamations of interpersonal victimisation and abuse types will result in differential outcomes. Victims of poly-victimization report elevated symptomology of posttraumatic stress, increase in admission to hospital and increased levels of suicidality (Bryant & Range, 1995).

Research into poly-victimization has often concentrated on one particular developmental period, for example childhood (cf., Finkelhor *et al.*, 2007; Higgins & McCabe, 2001; Litrownik *et al.*, 2005; Saunders, 2003), or on one particular interpersonal trauma type, for example IPV (Cavanagh et al, 2013). Further, the vast majority focus on female only or mixed samples. Moeller, Bachmann, and Moeller (1993) reported that almost half of the 668 American females under investigation had experienced two or more types of abuse. Likewise, Higgins and McCabe (2000) among their mixed female and male sample reported that almost half of their sample (43%) experienced more than one type of abuse, with some (6.9%) reporting experiencing five varying types of abuse. Studies that focus exclusively on male respondents tend to concentrate on military personnel and outcomes relating to military trauma and PTSD (cf. Forbes et al., 2013; Morris, Smith, Farooqui, & Surís, 2014). In light of studies such as Coker et al. (2002), which show outcomes for male survivors of interpersonal victimisations differ and in some cases, are more deleterious for males when compared to females, the need to investigate male victims in civilian populations independently and to the same level as that of females is evident. Further, female centric studies will often compare female victims to non-victims, yet mixed population studies more often compare male victims to female victims (cf. Afifi et al., 2009).

Taken together, multiple victimisation, either concurrently or sequentially, is associated with elevated negative outcomes when compared to experiencing a single abuse type. This is further seen when examining studies that perform a simple count of the number of abusive or traumatic experiences suffered by an individual. Tanskanen et al. (2004) investigated a Nordic population (*n*= 1405) and they assessed the number of traumatic events including combat experience, natural disasters, accidents that threatened life, violent crime victimisation, domestic violence and sexual abuse in childhood that each subject endorsed along with symptoms and history of depression. This study reported that depressive symptoms persisted for those who endorsed multiple traumatic experiences in a dose response fashion.

4.1.4 Assessing poly-victimization

Studies assessing simple counts of traumas are important in establishing the co-occurrence of trauma and victimisation experiences. They are, however, limited in that they often require the participant to nominate their worst traumatic experience at the expense of other experiences, which restricts the ability to elucidate how multiple trauma experiences interact to increase or decrease the likelihood of negative mental health outcomes. Several further methodological flaws have been identified. Higgins and McCabe (2001) identified a focus on physical and sexual abuse at the expense of psychological and other forms of abuse. This is an important avenue of research given that experiences of maltreatments may interact in a way that is more detrimental than the experience of a single type of victimisation (Wolfe &

McGee, 1994). Higgins and McCabe (2001) also claim that although some studies appeared to investigate the co-occurrence of abuse types, analyses will only focus on one type of abuse (cf. Milner & Crouch, 1993). Examining a broad gamut of abuse types in relation to co-occurrence is an important avenue of research given that "*different types of child maltreatment interact in a manner that is more detrimental to development than the influence of one type alone*" (Wolfe & McGee, 1994, p. 168).

A growing number of studies have begun to investigate typologies of abuse. Sackett and Sanders (1999) compared the impact of psychological abuse on women (n=60) who had been in physically abusive relationships, across specialised women's shelter and non-shelter services. The factor analysis resulted in four factors of psychological abuse; ridiculing, criticizing, ignoring, and jealous control. This study built on previous theory with regard to psychological trauma suffered by battered women.

4.1.5 Typologies of abuse and victimisation

While Factor Analysis is focused on the structure of the variables, more recently, with the advance of some statistical packages it has been possible to adopt a person-centred approach utilising Latent Class Analysis (LCA) and Latent Profile Analysis (LPA) techniques. LCA as a statistical framework is applicable in many areas of research. For example, Smith, Farrell, Bunting, Houston and Shevlin (2011) employed LCA to assess typologies of polydrug use in an epidemiological study of 8,538 adults in the UK. LCA was conducted on self-reported endorsement of nine types of drug

use, these were cannabis, amphetamines, cocaine, ecstasy, acid, mushrooms, tranquilisers, amyl nitrate and heroin/crack. Results showed a three-class solution was the best fit for the data and these were classified as Class 1: wide range polydrug use, Class 2: moderate range polydrug use and Class 3: no polydrug use. Advancing the modelling framework to include a regression analysis revealed that younger man were more likely to be in class 1, the wide range polydrug use. Excessive drinking was also more likely for the respondents in class 1 and lower educational attainment was more evident in both polydrug use classes.

Subsequent to this, Armour, Elklit and Christoffersen (2014) utilised a LCA to investigate typologies of childhood maltreatment in a sample of 2,980 Danish participants aged 24 years. This analysis was conducted on 20 measures of specific types of maltreatment experiences. The preferred model comprised four classes or typologies of experience of childhood maltreatment; high psychological abuse (9.7%), high experience of sexual abuse (2%), overall abuse (2.1%) and a normative class of no abuse experience (86.2%). Using the normative class as a reference class, the results showed that those respondents who had been subject to child protection orders, there was over four times the risk of them being in the psychological abuse class, almost six times the risk of being in the sexual abuse class and over 17 times the risk of them being in the overall abused class.

4.1.6 Aims and objectives

The current study aims to explore whether discrete typologies of interpersonal victimisation and trauma exist in a male subpopulation of a large epidemiological dataset. Previous research has evidenced distinct classes of victimisation, interpersonal victimisation and traumatic experience in female populations, child and adolescence populations (Armour et al., 2014; Cavanagh et al., 2013; Rebbe, Nurius, Ahrens, & Courtney, 2017). It is therefore hypothesised that distinct typologies will also be evident in a male population, to including a normative class. Based on previous findings that multiple experiences of different types of trauma are reported sequentially or consecutively (Finkelhor et al., 2011), it is further hypothesised that a poly-victimization class will emerge.

4.2 Method

4.2.1 Procedure

The National Institute of Alcohol Abuse and Alcoholism (NIAAA) conducted Wave III of the National Epidemiological Survey on Alcohol and Related Conditions (NESARC III; Grant, Amsbary & Chu, 2014). This cross-sectional survey was carried out 2012-2013 among noninstitutionalised residents in private households and military quarters in the USA, aged 18 years and over. Computer-assisted personal interviews (CAPI) were carried out face-to-face by trained interviewers with a total of 36,309 participants and data were weighted to account for over-sampling of Blacks,

Hispanics, Asians and Pacific Islanders. Comprehensive details pertaining to all methods used in the survey are available elsewhere (Grant et al., 2014).

4.2.2 Participants

Of the participants (n=36,309), a total of 15,862 (43.69%) were males who completed the face to face CAPI and these data were utilised in the current study. Overall response rate was 60.1%. Age, marital status, race socio-economic status assessed by receipt of government food stamps in the past year of the male sub-sample are shown in table 1.

Table 4.1. Distribution of age, marital status and race characteristics in the male respondents of the NESARC III (n-36,309).

Characteristic	N	%
Total Males	15,862	43.69
Age of Males (years)		
18-29	3638	22.93
30-39	2966	18.70
40-49	2866	18.07
50-59	2875	18.13
60-69	1989	12.54
70+	1528	9.63
Marital Status of Males		
Married	6724	42.39
Living as if married	1094	6.90
Widowed	583	3.68
Divorced	2064	13.01
Separated	556	3.50
Never married	4841	30.52
Ethnicity		
White, non-Hispanic	8555	53.9
Black, non-Hispanic	3153	19.9
American Indian, Alaska Native, non-Hispanic	210	1.3
Asian, Native Hawaiian, Other Pacific Islander, non-Hispanic	851	5.4
Hispanic, any race	3093	19.5
Low SES		
Receipt of government food stamps in the past year	2167	13.7

4.2.3 Measures

The NESARC III utilised the AUDADIS-5 instrument for data collection. The AUDADIS-5 was delivered as a CAPI by fully trained interviewers. Details of this measure are available in chapter 2 and in Grant, et al. (2014).

Childhood and adulthood victimisation experiences were assessed using 11 dichotomous indicators. Three childhood specific indicators asked respondents to rate their experiences prior to the age of 18 years. A further two childhood specific indicators were assessed by asking respondents to rate their experiences prior to the age of 18 years and from self-report questions asking respondents to indicate their traumatic experiences including interpersonal victimisation from a list of coded responses, displayed via a flashcard titled "*45a Stressful Life Experiences: Traumatic Experiences That Happened to You*" to the question "*In your entire life, have any of these stressful or traumatic events ever happened to you personally*". The remaining six indicators were obtained solely from the self-report questions asking respondents to indicate their adult experiences of interpersonal victimisation from a list of coded responses via a flashcard to the question "*In your entire life, have any of these stressful or traumatic events ever happened to you personally*". Respondents were given four opportunities to endorse different experiences from the list displayed via a flashcard (see Appendix 2).

4.2.3.1 The witnessing of domestic violence in childhood.

A composite measure of witnessing domestic violence in childhood was created from four items i.e. (1) "*Before you were 18, how often did your father/other adult male push, grab, slap or throw something at your mother/other adult female*", (2) "*Before you were 18, how often did your father/other adult male kick, bite, hit your mother/other adult female with a fist or something hard*", (3) "*Before you were 18, how often did your father/other adult male repeatedly hit your mother/other adult female for at least a few minutes*", (4) "*Before you were 18, how often did your father/other adult male threaten your mother/other adult female with a knife/gun or use a knife/ gun to hurt her*". A positive endorsement on any item was coded as: (1) Witnessing Domestic violence in childhood (wdvc), whereas a negative endorsement on all was coded as (0) No endorsement of Witnessing Domestic violence in childhood.

4.2.3.2 Neglect by a parent or caregiver prior to the age of 18 years.

A composite measure of neglect in childhood was created from five items i.e. (1) "*Before age 18, how often were you made to do chores that were too difficult or dangerous for someone your age*", (2) "*How often were you left alone or unsupervised when you were too young to be alone, that is, before you were 10 years old*", (3) "*Before age 18, how often did you go without things you needed like clothes, shoes or school supplies because a parent/other adult living in your home spent the money*

on themselves", (4) "*Before you were 18, how often did a parent/other adult living in your home make you go hungry or not prepare regular meals*" (5) "*Before you were 18, how often did a parent/other adult living in your home ignore or fail to get you medical treatment when you were sick or hurt*". A positive endorsement on any item was coded as: (1) Neglect prior to 18 (neg), whereas a negative endorsement on all was coded as (0) No endorsement of Neglect.

4.2.3.3 Physical assault by a parent or caregiver prior to the age of 18 years.

A generalised composite measure of physical assault or abuse in childhood was created from two items i.e. (1) "*Before you were 18, how often did a parent/other adult living in your home push, grab, shove, slap or hit you*", (2) "*Before you were 18, how often did a parent/other adult living in your home hit you so hard that you had marks or bruises or were injured*", and the option to endorse from the list code 8. Physically abused before age 18. A positive endorsement on any item was coded as: (1) Physical Assault prior to 18 (phyp18a), whereas a negative endorsement on all was coded as (0) No endorsement of Physical Assault prior to 18.

4.2.3.4 Sexual assault prior to the age of 18 years.

A generalised composite measure of sexual assault in childhood was created from four items i.e. (1) "*Before you were 18, how often did an adult/other person touch or fondle you in a sexual way when you didn't want them to or were too young to know*

what was happening", (2) "*Before you were 18, how often did an adult/other person have you touch their body in a sexual way when you didn't want to or were too young to know what was happening*", (3) "*Before you were 18, how often did an adult/other person attempt to have sexual intercourse with you when you didn't want them to or were too young to know what was happening*", (4) "*Before you were 18, how often did an adult/other person actually have sexual intercourse with you when you didn't want them to or were too young to know what was happening*", A positive endorsement on any item was coded as: (1) Sexual Assault prior to 18 (sexp18a), whereas a negative endorsement on all was coded as (0) No endorsement of Sexual Assault prior to 18.

4.2.3.5 Psychological abuse prior to the age of 18 years.

A composite measure of psychological abuse in childhood was created from three items i.e. (1) "*Before you were 18, how often did a parent/other adult living in your home swear at or insult you or say hurtful things*", (2) "*Before you were 18, how often did a parent/other adult living in your home threaten to hit or throw something at you but didn't do it*", (3) "*Before you were 18, how often did a parent/other adult living in your home act in any other way that made you afraid you would be physically hurt*". A positive endorsement on any item was coded as: (1) Psychological Abuse prior to 18 (psyp18a), whereas a negative endorsement on all was coded as (0) No endorsement of Psychological Abuse prior to 18.

4.2.3.6 Sexual assault or abuse across the life-course.

A measure of sexual assault at any time across the life-course was derived from the option to endorse the responses displayed via a flashcard: "*Sexually abused before age 18*". A positive endorsement was coded as: (1) Sexual Assault (ssa), whereas a negative endorsement was coded as (0) No endorsement of Sexual Assault.

4.2.3.7 Intimate partner violence.

A measure of Intimate Partner Violence (IPV) was derived from the option to endorse the responses displayed via a flashcard: "*Beaten up by spouse/romantic partner*". A positive endorsement was coded as: (1) Intimate Partner Violence (ipv), whereas a negative endorsement was coded as (0) No endorsement of Intimate Partner Violence.

4.2.3.8 Beaten up.

A measure of experiencing being beaten up by someone other than a romantic partner was derived from the option to endorse the responses displayed via a flashcard: "*Beaten up by someone else*". A positive endorsement was coded as: (1) Beaten up (bu), whereas a negative endorsement was coded as (0) No endorsement of being Beaten Up.

4.2.3.9 Kidnapped at any time across the life-course.

A measure of experiencing being Kidnapped or held hostage at any time across the life-course was derived from the option to endorse the responses displayed via a flashcard: "*Kidnapped/held hostage*". A positive endorsement was coded as: (1) Kidnapped or held hostage (kn), whereas a negative endorsement was coded as (0) No endorsement of having been Kidnapped or held hostage.

4.2.3.10 Stalked at any time across the life-course.

A measure of experiencing being stalked at any time across the life-course was derived from the option to endorse the responses displayed via a flashcard: "*Stalked*". A positive endorsement was coded as: (1) Stalked (st), whereas a negative endorsement was coded as (0) No endorsement of having been Stalked.

4.2.3.11 Mugged, held up, threatened with a weapon or assaulted in any other way at any time across the life-course.

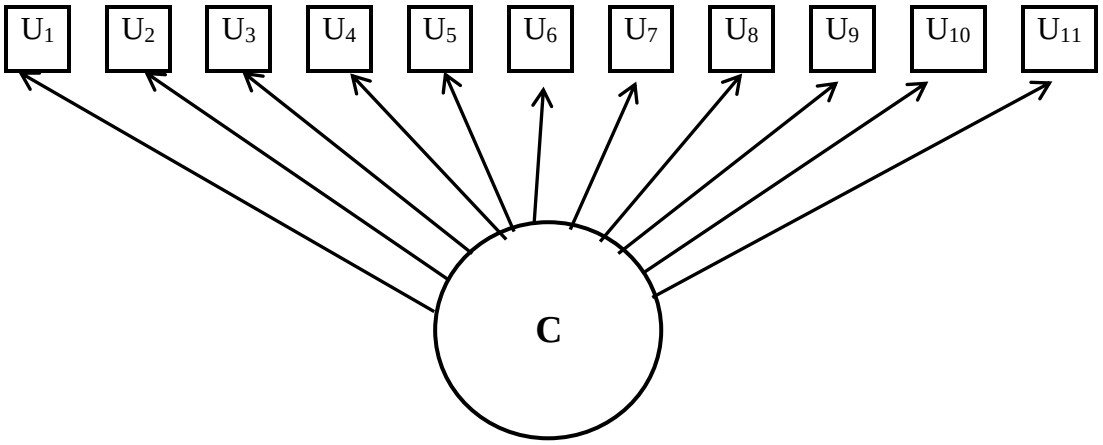
A measure of experiencing being Mugged or held up, threatened with a weapon or assaulted in any other way at any time across the life-course was derived from the option to endorse the responses displayed via a flashcard: "*Mugged, held up, threatened with a weapon or assaulted in any other*". A positive endorsement was coded as: (1) Mugged, held up, threatened with a weapon or assaulted in any other

way (mu), whereas a negative endorsement was coded as (0) No endorsement of being Mugged, held up, threatened with a weapon or assaulted in any other way.

4.2.4 Analytic Plan

Descriptive statistics and frequencies for the demographic variables and generated composite variable representing total number of victimisations experienced were conducted using SPSS 23. Latent Class Analysis (LCA, Hagenaars & McCucheon, 2002) with categorical variables is a 'finite mixture model' with nested variables and an appropriate analysis technique for this data. The aim of a LCA is to find the most parsimonious solution, with that in mind LCA was employed to expose the number of core homogeneous groups, underlying the multivariate categorical data relating to specific endorsement of experiences of interpersonal poly-victimization. LCA was utilised to determine the nature and number of latent classes in the sample based on the respondents' endorsement patterns to 11 indicators evidencing experiences of interpersonal poly-victimization across the life-course, five questions specifically targeting childhood indicators and options to endorse four further experiences from 33 options listed on a flashcard (see table 4.2). Figure 1 shows an infographic of the model tested were 'U' represents the latent categorical nested variable. These variables are the 11 victimisation experiences endorsed by participants. 'C' represents the number of classes specified and estimated in each model.

Figure 4.1. Inforgraphic representation of the model tested where ‘U’ is the latent categorical nested variables and ‘c’ is the number of classes



Sampling weights were included in the analysis given their impact on parameter estimates, standard errors and the tests of model fit, thus allowing for generalisation to the population rather than just the specific sample of respondents. Missing data was assessed and where cases were missing endorsement of 30% or more they were removed from further analysis. In total, 68 cases were removed, resulting in a total sample size of 15,794 cases for analysis. Remaining cases with missing endorsements were estimated using full information maximum likelihood (Schafer & Graham, 2002), the default estimator in the MPlus program.

A series of latent class models, ranging from 2-6 classes, were specified and estimated. Model selection was conducted according to a range of information criterion (IC); the Akaike Information Criteria (AIC: Akaike, 1987), the Bayesian

Information Criterion (BIC: Schwarz, 1978), and the sample size adjusted BIC (SSABIC: Sclove, 1987). The relative entropy value (Ramaswamy, DeSarbo, Reibstein, & Robinson, 1993) was used to specify accuracy in respondents' taxonomy (values range from 0 to 1), with values closer to 1 indicating better classification. The Lo-Mendell-Rubin adjusted likelihood ratio test (LRT; Lo, Mendell, & Rubin, 2001) and resulting statistical probability was also utilised to inform best fit for the number of classes and substantive meaning was scrutinised.

Lower values on the AIC, BIC, and SSABIC indicate better fitting models in general. However, recent simulation studies have reported that the most reliable of these fit indices is the BIC (Nylund, Bellmore, Nishina, & Graham, 2007) but more so in cases when the class sizes are equal (Nylund, Asparouhov & Muthén, 2007). It has been shown that in some cases the AIC, BIC, and SSABIC may continually decrease as class models are iteratively increased. When adding classes, the difference between scores can be examined, if this difference is small when compared to other solutions, then the additional class may add little or no value to the model (DiStefano & Kamphaus, 2006; Raftery, 1995).

The Likelihood Ratio Test (LRT) tests if a model that has *K*+1 classes is a significantly better fit that a model that has *K* classes, where *K* is the number of classes tested in the model. While bootstrapping is a preferred technique for the LRT, the use of a weight variable prohibits bootstrapping in the current analysis. The Lo-Mendel-Rubin (LMR) LRT examines the difference in log likelihood for the *K*-1 class compared to the *K* class in these nested models. LMR LRT is argued to be a good predictor of the

correct number of classes and performs well in simulated studies however, it may be prone to overestimation of number of classes as the *p* value can jump from significant to non-significant and back to significant again. It is therefore advised that the first time the *p* value is exposed as non-significant is the recommended cut for the addition of further classes. (Petscher, Schatschneider, & Compton, 2013). The final consideration in the analysis is centred on the substantive meaning of the ensuing class solution. Nylund, Asparouhov and Muthén (2007) report that classes should be distinct in their classification and meaningful in relation to the population.

All analyses were conducted in Mplus 7.3 (Muthén, & Muthén., 2014) with the inclusion of the weight variable accessed in the NESARC III dataset which accounts for the over-sampling of Blacks, Hispanics, Asians and Pacific Islanders, and ensured that the sample was representative of the American population. All variables were categorical, and to safeguard against "*local maxima*", 500 starts and 50 final stage optimizations were specified.

4.3 Results

4.3.1 Sum of Victimisation Experience Endorsements

Of the 15794 participants in the final analysis, no single participant endorsed all 11 of the interpersonal victimisation indicators. Just over half (56%), of all participants did not endorse any interpersonal victimisation experience with 973 participants (6.1%) endorsing more than three interpersonal victimisation experiences (see table 4.3). Total number of victimisations experienced by class is available in table 4.5.

Table 4.2. Number of counts of endorsements of interpersonal victimisation indicators.

Number of Endorsements	Count of endorsement (%)	
0	8842	(56%)
1	2874	(18.2%)
2	1874	(11.8%)
3	1248	(7.9%)
≥4	973	(6.1%)

4.3.2 Latent Class Enumeration and Interpersonal Poly-victimization Profiles

A series of 2-6 latent class models were specified and estimated and model selection was conducted according to a range of fit indices. The three-class solution was considered the best fitting model on the data based on a series of fit indices (see table 4.4) in conjunction with substantive meaning. Specifically, the BIC is argued to be the most reliable indicator of the available information criteria (ICs) (Nylund *et al.*, 2007), however recent simulation studies have shown that this may only be appropriate where classes are of equal size. The current study found that there was

a minor decrease in the ICs, particularly after the 3-class solution, the decrease in not only the BIC but also the AIC and the SSABIC was minimal, suggesting the 3-class model provides a better fit (DiStefano & Kamphaus, 2006; Raftery, 1995). More importantly the Lo-Mendell-Rubin Adjusted LRT test is argued to be a good predictor of the correct number of classes and performs well in simulation studies however, in some cases it can be prone to overestimation of the number of classes as the significance value can move from significant to non-significant and back again. It is advised that the first time the significance level is deemed non-significant is the cut for the addition of further classes and that the correct number of classes is *K*-1. This was found to be the case when the 4-class model was estimated therefore the 3-class solution was indicated as the best fit. Entropy level was exposed as .834 for the 3-class solution, the highest classification for the models tested, indicating that the three classes were appropriate and well defined. When examined for substantive meaning the 4-class solution compared to the 3-class solution did not add a meaningful typology to the model. Therefore, taking into account all the IC and other fit statistics, substantive meaning and parsimony, it is decided that the three-class solution offers the best fit for the data. Figure 4.2 presents a graphical illustration of the resulting 3-class model where 3.1% of the sample is classified as class 3, 20.9% are classified as class 2, and 76% are classified into class 1.

Class 1 contained the majority of respondents and indicated the least probability of endorsement of the indicators across the life-course. This class achieved no endorsement of interpersonal victimisation across the majority of indicators with the exception of a very low endorsement of neglect and physical abuse prior to 18 years

of age. This class will therefore be the reference class for the population and is labelled ‘normative’.

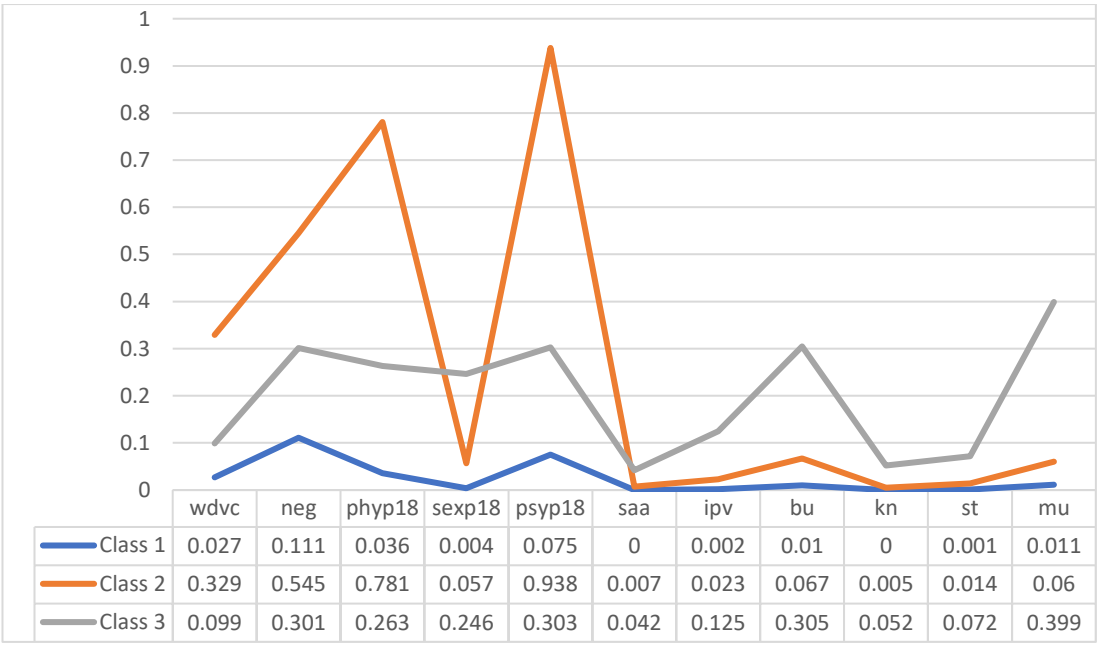
Class 2, the next largest class, showed individuals with a high probability of endorsing indicators from childhood only, with low or no probability of endorsing adult interpersonal poly-victimization indicators. This class included individuals who had the highest probability of endorsing witnessing domestic violence in childhood, neglect, physical and psychological abuse in childhood. However, individuals in this class showed low endorsement probability of sexual assault prior to age 18 years. This class was labelled ‘childhood’.

The final class, class 3, showed a moderate endorsement across most indicators with a small positive endorsement of sexual assault in adulthood, life-course experience of kidnapping and stalking. This class included individual who endorsed the highest probability of sexual assault in childhood, along with the highest probability of endorsing IPV, being beaten up, kidnapped, stalked and mugged, therefore this class was named ‘life-course’.

Table 4.3. Fit statistics for classes 2 to 6

classes	parameters	AIC	BIC	SSABIC	LRT(p)	ENTROPY
2	23	68619.872	68796.222	68723.13	9740.249 (0.0)	0.827
3	35	67906.511	68174.87	68063.642	**731.059 (0.0027)**	**0.834**
4	47	67562.478	67922.845	67773.483	364.888 **(0.0616)**	0.777
5	59	67444.634	**67897.01**	**67709.512**	140.632 (0.0993)	0.773
6	71	67392.682	67937.066	67711.433	75.303 (0.1546)	0.80

Figure 4.2. Profile plot of the 3-class solution.



	wdvc	neg	phyp18	sexp18	psyp18	saa	ipv	bu	kn	st	mu
Class 1	0.027	0.111	0.036	0.004	0.075	0	0.002	0.01	0	0.001	0.011
Class 2	0.329	0.545	0.781	0.057	0.938	0.007	0.023	0.067	0.005	0.014	0.06
Class 3	0.099	0.301	0.263	0.246	0.303	0.042	0.125	0.305	0.052	0.072	0.399

Figure 4.2. Profile plot of the 3-class solution.

Table 4.4. Frequency of endorsement of Interpersonal Victimisation experience by class and total population.

	Class 1 normative (*n* =11,812: 76%)	**Class 2 childhood (*n* =3,476: 20.9%)**	**Class 3 life-course (*n* =506: 3.1%)**	**Total endorsement (*n*)**
wdvc	312	1136	56	1504
neg	1184	2090	157	3431
Phy18a	355	2737	155	3247
sexp18a	48	209	157	414
psyp18a	858	3280	147	4285
ssa	4	24	27	55
ipv	20	88	94	202
bu	136	246	204	586
kn	0	21	43	64
st	19	54	65	138
mu	135	216	314	665

4.4 Discussion

The current study aimed to expose discrete latent typologies of interpersonal poly-victimization and abuse in an adult male sample. It was hypothesised that underlying typologies would be exposed based on previous research reporting the co-occurrence of multiple abuse types both concurrently, and sequentially (Higgins & McCabe, 2001; Finklhor et al., 2007) and previous studies that have utilised LCA (Armour et al., 2014).

The hypothesis are confirmed based on the endorsement rates of interpersonal victimisation experiences in the male population of the NESARC III. Taking into account all the IC and other fit statistics, substantive meaning and parsimony, it is decided that the 3-class solution offers the best fit for the data. As expected the vast majority of people in the general population do not experience interpersonal victimisation and trauma and this is reflected in class 1, the largest class (76%). Evidenced in this class was a very small endorsement of neglect and physical abuse, it must be remembered that these endorsements are based on self-report and therefore, the perception of the participant. As each person perceived their experiences based on the meaning they attach to it themselves. Culturally it was seen as acceptable to smack a child only a few years ago where it is now much less acceptable, it is possible that some respondents may label being smacked as a child as abuse, while other will not.

The next largest class was class 2 (20.9%), labelled as 'childhood'. This class exposed a typology of poly-victimization specific to childhood abuse and maltreatments. Indeed, this class exposed an alarmingly high endorsement of psychological abuse which in agreement with previous research. Barnett, Miller-Perrin, and Perrin (2005) argue that psychological victimisation could be the most prevalent of the childhood abuse indicators endorsed in the population while Armour *et al.* (2014), also found a typology exposing high levels of psychological abuse. Of note, physical and sexual abuse have received a greater proportion of research attention in the area of childhood maltreatment and abuse perhaps, because psychological abuse has no direct physical impact and is therefore harder to define and operationalise. Indeed, Horner (2012), reports that this lack of attention may also be due to a misconceived notion that psychological abuse may have less onerous outcomes that that of other abuse types. However, psychological abuse and maltreatment when examined have been correlated to many negative outcomes including depression, anxiety and physical health complaints (Spertus, Yehuda, Wong, Halligan, & Seremetis, 2003). Noting that studies focused on singular abuse types may not expose the true nature or prevalence of the experience of victims, the current study would indicate that psychological abuse is an important co-occurring factor in the experience of childhood interpersonal poly-victimization in males and is worthy of further attention. This group also endorsed the highest rate of witnessing domestic violence in childhood. It has been shown that witnessing severe domestic violence in childhood may be associated with further victimisation experiences in adolescence (Armour & Sleath, 2014). This profile may in part, be the result of state child services interjecting in the lives of the most severely victimised children. There are

consistently more male children classed as 'looked after' and in the state care systems than females and the most cited reason for this is physical abuse and neglect (Cocker & Scott, 2006). This class also shows evidence that victims of childhood abuse experiences are also at risk of being beaten up or mugged in adulthood. This is of interest and may be shown to be a result of living in a criminogenic environment (cf. Farrington & Welsh 2008).

The final class, class 3 (3.1%), showed a moderate endorsement of all the indicators across the life-course. This profile of interpersonal poly-victimization across the life-course also shows the highest endorsement of all the indicators specific to adulthood including an elevated endorsement of being beaten up and mugged. We know that being a victim of any traumatic incident increases the risk of being a victim of a concurrent or subsequent victimisation experience and for this group, it appears to continue throughout the life-course. This included for this group, the highest endorsement of intimate partner violence (IPV). Historically it has been argued that IPV is a female centric experience (Lagdon et al., 2014), often framed as 'gender-based violence'. As a result, the vast majority of research in this area concentrated on female only victim samples therefore, provision for male victims was negligible. This is beginning to change and the issue of male victims of IPV is now being considered across the extant literature, often showing that IPV is bi-directional (Thornton, Graham-Kevan, & Archer, 2012), and that female perpetrators are at increased likelihood of using weapons such as knives against their romantic partners (Hines & Douglas, 2009).

The moderate endorsement of IPV in this profile sits in among the endorsements of all other types of victimisation assessed including the highest endorsement of sexual assault in adulthood. Sexual assault against a male in adulthood for many has never been considered as an issue yet reports of sexual assault by a spouse or partner and further rape of a male victim by anal penetration are beginning to come under examination and make their way into the extant literature (MacDonell & Bolton, 2017). It is possible that, given male victims are notorious for not disclosing their victimisation experiences, particularly where the victim believes he will be perceived as weak or somehow responsible for what has happened may mean that for a long time the issue of sexual assault and rape against male victims has been hidden (Romaniuk & Loue, 2017). The current study shows that sexual abuse in childhood and sexual assault or rape in adulthood, are not just the domain of female victims.

4.4.1 Limitations

The results of the current study should be examined in light of several limitations. The data utilised was previously collected and the focus of that original data collection was assessment of alcohol related conditions, as such no questions were asked directly about adult victimisation experience. Rather, participants were give four opportunities to choose any victimisation experience from a list on a flash card. As such, the full extent, severity and chronicity of participant experiences could not be examined. Further, in assessing domestic violence in the home, participants were asked about violence against their mother or significant adult female in their home

that was perpetrated by their father or significant adult male, but not against their father therefore the endorsements for witnessing domestic violence in the home could be severely under-reported.

4.4.2 Conclusion

No type of interpersonal poly-victimization is the domain of any one gender, therefore interventions and support for victims should be targeted without discrimination amongst males and females. Research should concentrate on developing and ensuring that available interventions are adequate to meet the needs of all the victims they aim to support rather than being based on empirical research that only examines one particular group that may be publicly or politically perceived as the only victims. Victims attending their doctors or health professionals in the first instance should be asked screening questions that are standardised. Trauma focused care asking, 'What has happened to you?' rather than 'What is wrong with you?' should be the focus of support offered to all victims as how these questions are perceived and responded to may have implications for the interventions and support that people are directed to or offered. Despite limitations, the current study shows that for a large portion of the population, being a victim of any interpersonal victimisation experience means being a victim of interpersonal poly-victimization.

Chapter 5:

Interpersonal Poly-victimization across the Life-course; Negative Mental Health Outcomes in a Male Population

5.1 Introduction

As seen in chapter 4, three classes or profiles of interpersonal poly-victimization across the life-course were exposed by latent class analysis, one profile shows a normative class with low/no poly-victimization experience across the life span, one profile evidenced childhood specific endorsement of interpersonal poly-victimization and a further profile evidencing endorsement of life-course interpersonal poly-victimization. Understanding how these profiles relate to psychopathology is an important next step and to that end, the current chapter will examine to what extent these profiles are predictive of negative mental health outcomes, in line with the diagnostic criteria of the DSM-5, in the male sub-sample of the NESARC III. Particular attention will be paid to the cumulative impact of profiles evidencing childhood interpersonal poly-victimization and life-course poly-victimization when compared to the normative profile.

Survivors of interpersonal poly-victimization and abuse are at increased likelihood of a variety of negative mental health outcomes including posttraumatic stress disorder (PTSD), anxiety and depression (Golding, 1999; Sugaya et al., 2012), and behavioural outcomes including criminal behaviours (Howell, Cater, Miller-Graff, Schwartz, & Graham-Bermann, 2017). Further, multiple experiences, either concurrently or sequentially have a cumulative impact and are known to increase risk of symptomology in a dose-response fashion (Shevlin et al., 2008).

5.1.1 Gender disparity in reported prevalence rates of interpersonal poly-victimization

While this thesis makes no attempt to compare male victims to female victims it is vitally important to understand that gender differences are prevalent in the experiences of victimisation and the psychological outcomes, this is crucial to the justifications for the study of male victims who have been hidden in the shadows for centuries through cultural constraints (see chapter 1). Indeed, as previously discussed in chapter 1, many victimisation experiences are perceived to be female centric including Intimate Partner Violence (Cavanagh et al., 2013), however this is often based on statistics from cases that move through the judicial system which are disproportionately representative of female victim (cf. Chapter 1). Prevalence rates of interpersonal victimisation have been shown to vary by gender (Shorey, Febres, Brasfield & Stuart, 2012), with females experiencing higher levels of neglect, sexual and psychological abuse in childhood, whereas males tend to experience more physical abuse in childhood (May-Chahal & Cawson, 2005). Evidence from the USA indicates that higher proportions of males compared to females (58.6%) make up the victims in cases of fatal childhood abuse and neglect with the majority of these children not surviving beyond their 3rd birthday (U. S. Department of Health & Human Services, 2018). This is a distressing and stark reality for too many children; infants under three years old are less robust when exposed to victimisation experiences, and where an older child might survive a punch or being shaken, or may even be able to run away to escape an abuser, the infant under three is at the mercy of the adult with responsibility (Richards, 2000). In general, this is the story across the life-course for

men, in the case of murder or homicide, adult males in the USA are more at risk of premature death at the hand of another person than females, of the 18,124 people murdered in 2005, 79% were male. Those most at risk include Black males however, official statistics from the U.S. Department of Justice in 2005 show a steady decline in homicide rates compared to previous years, across all victim profiles (Synnott, 2016).

In adolescence and young adulthood, one of the most commonly recorded form of victimisation reported is physical assault, with males at up to three times the risk of experiencing an assault than their female counterparts (U.S. Bureau of Justice Statistics, 2015), indeed, in the case of rape, sexual violence and sexual abuse a staggering 38% of victims in the USA are male, with 46% of those men reporting a female perpetrator (Weiss, 2015), yet sexual crimes against the person continue to be perceived as female victim and male perpetrator centric (Hine & Murphy, 2017).

Theories to explain the heterogeneity in the reported rates of interpersonal victimisation by gender have been proposed, for example, Maxfield and Grande-Bretange (1984) claim males may be reluctant to disclose anything that exposes vulnerability and Brown (2004), claimed males are reluctant to disclose these experiences as they feel they will not be believed or are too embarrassed to come forward. Indeed, Hines, Brown and Dunning (2007), state that male callers to Intimate Partner Violence (IPV) helplines in the USA were refused service or even laughed at, thus re-victimizing the caller until the formation of a male specific helpline for IPV victims.

5.1.2 Psychopathology as a consequence of victimisation experience

A plethora of evidence exists confirming that experience of maltreatment can be an aetiological factor in the development of adult psychopathological outcomes. For example, Rome (2004), found the experience of childhood sexual abuse was implicated in the development of eating disorders, Sugaya et al. (2012), found an increased likelihood of bipolar disorder, Attention Deficit Hyperactivity Disorder (ADHD) and Posttraumatic Stress Disorder (PTSD) for victims of physical abuse in childhood. Further, Armour, Shevlin, Elklit and Mroczek (2012) showed evidence of PTSD symptomology in adult rape victims while adult physical violence victims endorse symptoms of anxiety and depression (Golding, 1999)

5.1.3 Poly-victimization and re-victimisation

It is widely accepted that victimisation experiences rarely occur in isolation (Finklehor et al., 2007; Higgins and McCabe, 2001; Pears et al., 2008), and several studies have noted that where victimisation experiences exist, poly-victimization is a common experience (Green, Collingwood & Ross, 2010; Higgins & McCabe, 2000). Indeed, where poly-victimization is evident, adverse psychopathy is ubiquitous (Bryant & Range, 1995; Burns et al, 2015; Lagdon et al., 2014).

That said, previous research outlined in 1.2 shows a focus on singular types of abuse, for example sexual abuse (Steine et al, 2017), or childhood specific experiences such as the witnessing of domestic violence (Dargis & Koenigs, 2017). Several prominent

researchers have established that multiple forms of abuse and neglect in childhood co-occur therefore, should not be investigated in a singular fashion (Finklehor, Ormund & Turner, 2007; Higgins and McCabe, 2001; Pears, Kim, & Fisher, 2008; Green et al. 2010). Indeed, evidence suggests that where a person is subject to victimisation at one stage in their life, they are at increased risk of further or subsequent victimisation experiences at a later time (Burns et al., 2015) therefor, multiple forms of abuse and neglect will co-occur across the life-course and this was evidenced in chapter 4 of the current thesis. Further, strong evidence has been reported that were multiple victimisations experiences are present, the prevalence of adverse mental health outcomes is more likely (Bryant & Range, 1995; Lagdon et al., 2014; Burns et al., 2015).

5.1.4 The cumulative impact of interpersonal poly-victimization and re-victimization

The chronic nature of many concurrent and sequential interpersonal poly-victimization experiences means that the cumulative impact on mental health is deleterious and increases the risk of further negative experiences (Skogan 1999). Witnessing domestic violence in childhood is associated with later victimisation experiences over the life-course (Armour & Sleath, 2014) and re-victimisation experiences have been exposed where bullying (Pitts & Smith, 1995), sexual abuse (Classen, Pelesh & Agganwal, 2005), and IPV (Kuijpers, van der Knaap & Winkel, 2012a) have been recorded.

Of note, mental health outcomes for males compared to females have also been shown to differ, with males more likely to endorse elevated rates of substance abuse disorders and externalising behaviours, while females are at increased risk of endorsing more internalising disorders such as anxiety and depression (McChesney, Adamson & Shevlin, 2015). Further, greater PTSD symptomology is reported in male sexual abuse and assault victims than in females (Peterson et al., 2011).

While the field of trauma research is concentrated for the most part on female victims, Dube et al. (2002) has noted that few studies have assessed interpersonal poly-victimization and abuse in an exclusively male sample. Consequently, few studies have examined interpersonal poly-victimization outcomes in relation to negative mental health consequences for an adult male population.

5.1.5 Aims and objectives

The current study will assess how interpersonal poly-victimization relates to the mental health outcomes of an exclusively male sample from the NESARC III. Previously established Latent Classes of interpersonal poly-victimization (see chapter 4) are utilised. It is hypothesised that 1) the childhood interpersonal poly-victimization class will have increased odds of endorsing negative mental health outcomes when compared to the non-victimised class; and 2) the life-course interpersonal poly-victimization class will have further elevated odds of endorsing

negative mental health outcomes than either the childhood interpersonal poly-victimization class or the non-victimised class.

5.2 Method

5.2.1 Sample

Participants were drawn from the National Epidemiological Survey on Alcohol and Related Conditions, Wave III (NESARC III, Grant et al., 2014). The NESARC III was carried out by the NIAAA from 2012-2013 on the American civilian non-institutionalised population, over 18 years of age and living in domestic households or military group quarters. The NESARC III data were weighted to account for the design characteristics of the survey including the oversampling of Blacks, Hispanics, Asians and Pacific Islanders. Only data from the male participants utilised in the Latent Class Analysis (see chapter 3) was used in this study (n=15,794). Comprehensive details of the methods used in the survey are available in chapter 2.

5.2.1 Measures

5.2.1.1 Demographics

The NESARC III queries an extensive range of demographic indicators in the survey. The current study includes an indication of low socioeconomic status and measures of marital status, ethnicity and age.

Socioeconomic Status (SES) was assessed by the question "*Did you receive food stamps during the last 12 months*?", a positive endorsement of this question was considered an indication of low SES. Marital status was assessed in one question. The NESARC III categories were retained and responses were coded as (1) never married, (2) living as if married, (3) widowed, (4) divorced, (5) married, with (5) married utilised as the reference class. Ethnicity/Race data were coded as (1) Black, non-Hispanic, (2) American Indian, Alaska Native, non-Hispanic, (3) Asian, Native Hawaiian, Other Pacific Islander, non-Hispanic, (4) Hispanic, any race, (5) White, non-Hispanic (Caucasian) with (5) White, non-Hispanic utilised as the reference class. Age was also grouped in line with the assessment in the NESARC III data and coded as (1) 18-29 years, (2) 30-39 years, (3) 40-49 years, (4) 50-59 years, (5) 60-69 years, (6) 70+ years in the current study, with (6) 70+ years deemed the reference class.

5.2.1.2 Latent Classes

Latent class typologies were previously established in this epidemiological data (see chapter 3). Three latent classes were evident including one class categorised as the low or no risk of endorsement of life-course interpersonal poly-victimization, this was considered the normative class and therefor the reference class, a second class were categorised as victims of childhood interpersonal poly-victimization and a final class categorised as victims of life-course interpersonal poly-victimization.

5.2.1.3 Diagnostic Assessment

Psychiatric diagnosis in the NESARC III was made according to the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) using the AUDADIS-5 (see chapter 3). The AUDADIS-5 is a diagnostic interview administered by trained interviewers during the NESARC III data collection and gathers self-reports of various mental health disorders such as anxiety or personality disorders, their occurrence and life course status (i.e. lifetime diagnosis or past year).

The current study utilises diagnostic variables categorised as lifetime. The DSM-5 groups several diagnoses into categories and these were used to create six composite variables while PTSD, alcohol use disorder and tobacco use disorder were individually reported within the data (see below).

5.2.1.3.1 Nicotine Dependant

Lifetime nicotine dependence was assessed using a binary coded variable present in the dataset, this was recoded to: (0) Lifetime diagnosis of nicotine dependence, (1) No diagnosis of nicotine dependence.

5.2.1.3.2 Alcohol Dependant

Lifetime diagnosis of alcohol dependence was assessed by a binary coded variable present in the dataset and was recoded to: (0) Lifetime diagnosis of alcohol dependence, (1) No diagnosis of alcohol dependence.

5.2.1.3.3 PTSD

Lifetime diagnosis of PTSD was assessed by a binary coded variable and present in the dataset. This was recoded to: (0) Lifetime diagnosis of PTSD, (1) No diagnosis of lifetime PTSD.

5.2.1.3.4 Drug Use Disorder

Lifetime drug use disorder was a composite measure of 10 lifetime drug use variables; lifetime sedative use, lifetime cannabis use, lifetime opioid use, lifetime cocaine use, lifetime stimulant use, lifetime hallucinogen use, lifetime inhalant/ solvent use, lifetime club drug use, lifetime heroin use and lifetime other drug use. The variable was recoded as: (0) Lifetime diagnosis of Drug Use Disorder, (1) No diagnosis of lifetime Drug Use Disorder.

5.2.1.3.5 Depressive Disorder

A composite measure of Lifetime Depressive Disorder was created from four items i.e. hierarchal and non- hierarchal major depression as well as hierarchal and non-hierarchal dysthymia. A positive endorsement of any one measure was coded as (0) Lifetime diagnosis of Depressive Disorder, and no endorsement was coded as (1) No diagnosis of lifetime Depressive Disorder.

5.2.1.3.6 Affective Disorder

A composite measure of Lifetime Affective disorder was constructed from three items i.e. manic disorder, hypomanic disorder and bipolar disorder. A positive endorsement of any one measure was coded as (0) Lifetime diagnosis of Affective Disorder, and no endorsement was coded as (1) No diagnosis of lifetime Affective Disorder.

5.2.1.3.7 Anxiety Disorder

A lifetime measure of anxiety and phobia was created from six separate items. These were specific phobia, social phobia, panic disorder, agoraphobia and generalised anxiety disorder. A positive endorsement of any one item was coded as (0) Lifetime diagnosis of Anxiety Disorder, and no endorsement was coded as (1) No diagnosis of lifetime Anxiety Disorder.

5.2.1.3.8 Eating Disorder

Lifetime feeding and eating disorders were assessed by three items i.e. anorexia nervosa, bulimia nervosa and binge eating disorder. A positive endorsement of any one item was coded as (0) Lifetime diagnosis of an Eating Disorder, and no endorsement was coded as (1) No diagnosis of a lifetime Eating Disorder.

5.2.1.3.9 Personality Disorder

A composite measure of Lifetime personality disorder was created from eight separate items assessing 1.) schizotypal personality disorder with and 2.) without distress/social-occupational dysfunction criterion, 3.) borderline personality disorder with and 4.) without distress/social-occupational dysfunction criterion, 5.) conduct disorder with and 6.) without distress/social-occupational dysfunction criterion and 7.) antisocial personality disorder with and 8.) without distress/social-occupational dysfunction criterion. A positive endorsement of any one item was coded as (0) Lifetime diagnosis of a Personality Disorder, and no endorsement was coded as (1) No diagnosis of a lifetime Personality Disorder.

5.2.2 Analysis

Missing data was assessed during the LCA analysis (see chapter 4) and no cases were further removed from the data leaving a total of 15,794 cases going forward into the analysis.

The association between the three latent classes, psychiatric diagnoses and demographics was assessed by binomial logistic regression. Latent class 1, the typology identified as no abuse across the life-course was used as the reference class to compare associated risk of class 2 (childhood poly-victimization) and class 3 (life-course poly-victimization) on psychiatric diagnosis. Psychiatric diagnosis variables in the current study were positively coded, i.e. were an endorsement of a psychiatric

diagnosis variable was identified it was coded as a positive endorsement (0) and all else was coded as a negative endorsement (1). Since MPlus 7.4 identifies the highest number label as the reference group during regression analysis all negative endorsements were coded as (1) so that all negative endorsements would be treated as the reference group.

The same protocol was applied to the coding of the demographics so that the highest group number label was treated as the reference group. Age 70+ was the reference group for the demographic of age. Not being in receipt of financial aid from the government was considered the reference group in the variable Socio-Economic Status (SES). For the variable of Ethnicity/Race, White non-Hispanic (Caucasian) was used as the reference class and for marital status, married was used as the reference class.

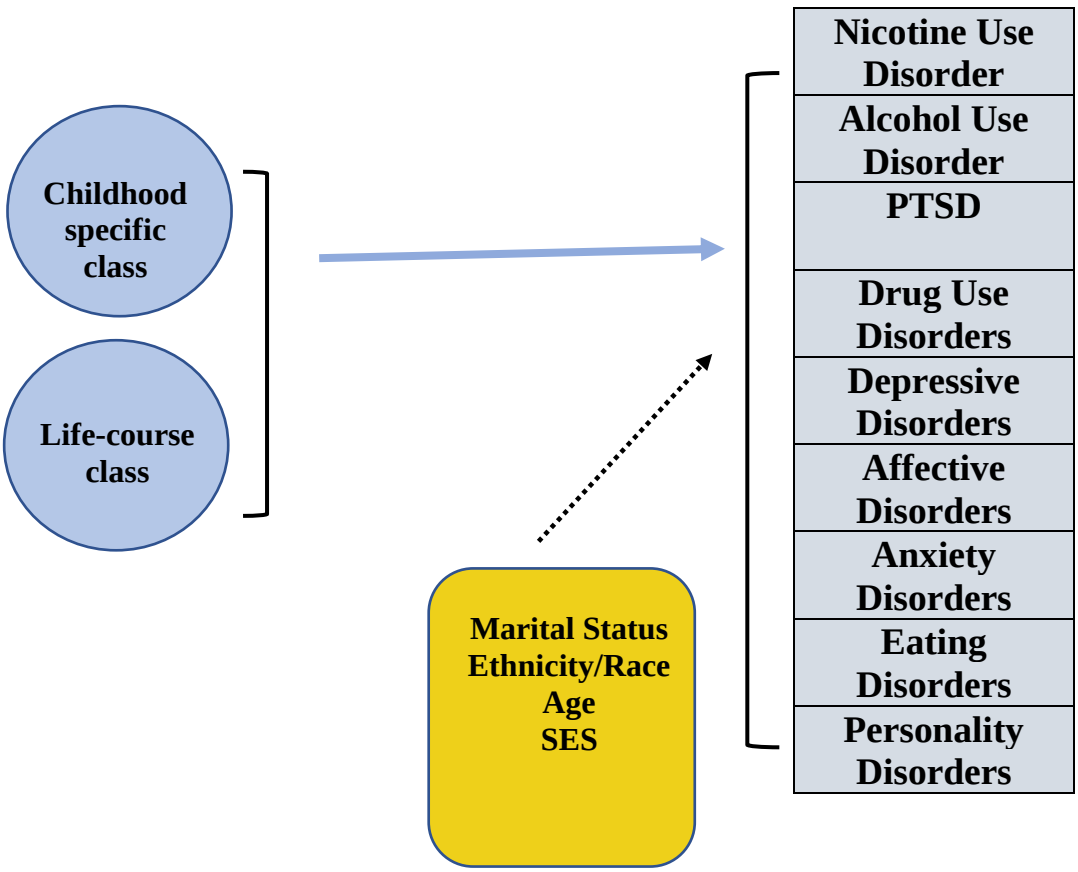


Figure 5.1: Final regression model; The relationship between class of poly-victimization and negative mental health outcomes

5.3 Results

The effective sample for analysis comprised 15,794 participants. At least one negative mental health diagnosis was endorsed by 60.2% of the total population with 10.9% endorsing four or more psychiatric diagnosis classifications (see table 5.1).

Table 5.1. Frequency and weighted % of psychiatric diagnosis and specific outcome endorsement for total sample (n=15,794) and per class membership.

	Total Sample (*n*=15,794)		**Normative** (*n*=11,812)	**Childhood** (*n*=3,476)	**Life-course** (*n*=506)
	N	**%**	**N (%)**	**N (%)**	**N (%)**
No diagnosis	6361	39.8	5503(45.6)	779(22.5)	79(15.8)
1 diagnosis	3875	25.0	3021(26.1)	767(22.3)	87(16.6)
2 diagnoses	2409	15.4	1680(14.7)	627(17.7)	102(18.7)
3 diagnoses	1419	8.9	865(7.1)	426(13.7)	92(18.6)
≥4 diagnoses	1630	10.9	743(6.5)	841(23.8)	146(30.4)
Nicotine Dependant	5007	32.1	3244(21.0)	1504(9.4)	259(1.7)
Alcohol Dependant	5555	36.0	3649(32.1)	1629(47.1)	277(55.7)
PTSD	677	4.1	271(2.3)	353(9.5)	53(12.2)
Drug Use Disorder	1993	12.3	1092(9.1)	759(21.5)	141(27.9)
Depressive Disorders	2781	17.5	1568(13.5)	1043(29.3)	170(35.5)
Affective Disorders	505	3.1	245(2.2)	216(6.0)	44(8.4)
Anxiety Disorders	1867	12.1	1022(9.2)	719(20.8)	126(24.9)
Eating Disorders	128	0.7	69(0.6)	54(1.3)	5(1.5)
Personality Disorders	2775	16.9	1267(10.6)	1281(35.9)	227(45.1)

Note: Normative = Class 1 = low/no endorsement of interpersonal poly- victimization, Childhood = Class 2 = childhood interpersonal poly-victimization, Life-course = Class 3 =. life-course interpersonal poly-victimization

.

Observed results across the demographics show that low SES increases the risk of a psychiatric diagnosis across all disorders with odds ranging from 1.231- 1.955 (Cis, see table 2). Being married was shown to be a protective of psychiatric diagnosis (see table 3), while being white, non-Hispanic is shown to be a risk factor for psychiatric diagnosis except for diagnosis of eating disorders (see table 4).

Being over 70 years of age was a protective factor for diagnosis of a psychiatric disorder. While no age group was consistently more at risk across all diagnostic categories, in general being in the 25 - 34-year-old age group, showed elevated risk on five of the diagnostic criteria; Nicotine Dependence, Alcohol Dependence, Drug Use Disorder, Affective Disorder and Personality Disorder (see table 5).

Results of the binomial logistic regression revealed significant increased risk of psychiatric diagnosis for the life-course poly-victimization class and the childhood poly-victimization class when compared to the reference class (See table 2 for odds ratios (OR's) and 95% confidence intervals (95%CI)). Further, the childhood poly-victimization class demonstrated elevated risk with increased odds ranging from 1.878 – 4.510 in magnitude across all indicators. Of particular note, larger odds of being diagnosed with PTSD (3.969) and Personality Disorders (4.51) were exposed. For those who were classified in the childhood specific poly-victimization class, Depressive disorders and Anxiety disorders were more than twice as likely to be endorsed (see table 2).

This was similarly reflected in the OR's for those classified as life-course poly-victimized however, further elevation in the risk of diagnosis of a mental health

condition was exposed with the odds ranging from 2.357-6.169, and a similar elevation in the odds of endorsing PTSD (5.016) and Personality Disorders (6.169). Depressive disorders and Anxiety disorders were approximately three times as likely in this class compared to the reference class (see table 2).

Table 5.2: Regression analysis results for Negative Mental Health Outcomes, Class Membership and Socioeconomic Status.

Item	**Class Membership (Reference = Normative)**		**Socioeconomic Status (Reference = not received food stamps in the past year)**
	Childhood	**Life-course**	**Received government aid (food stamps)**
Nicotine dependant	**1.925****	**2.540****	**1.955****
Odds Ratio (95%CI)	(1.743-2.125)	(2.018-3.196)	(1.689-2.185)
Alcohol dependant	**1.878****	**2.357****	**1.231****
Odds Ratio (95%CI)	(1.703-2.945)	(1.886-2.945)	(1.103-1.375)
PTSD	**3.969****	**5.016****	**1.656****
Odds Ratio (95%CI)	(3.232-4.875)	(3.407-7.386)	(1.320-2.076)
Drug Use Disorder	**2.581****	**3.184****	**1.737****
Odds Ratio (95%CI)	(2.260-2.948)	(2.449-4.048)	(1.503-2.006)
Depressive Disorders	**2.524****	**3.086****	**1.427****
Odds Ratio (95%CI)	(2.257-2.822)	(2.433-3.916)	(1.255-1.622)
Affective Disorders	**2.693****	**3.512****	**1.452****
Odds Ratio (95%CI)	(2.148-3.376)	(2.270-5.433)	(1.141-1.848)
Anxiety Disorders	**2.379****	**2.908****	**1.512****
Odds Ratio (95%CI)	(2.093-2.705)	(2.238-3.779)	(1.302-1.714)
Eating Disorders	**2.277****	2.530	1.633
Odds Ratio (95%CI)	(1.469-3.529)	(0.929-6.893)	(0.990-2.695)
Personality Disorders	**4.510****	**6.169****	**1.734****
Odds Ratio (95%CI)	(4.023-5.055)	(4.926-7.726)	(1.525-1.972)

Note: *=*p*<.001; ***p*<.01; **p*<.05**

Table 5.3: Regression analysis results for Negative Mental Health Outcomes and Marital Status.

Item	Marital Status (Reference = married)				
	Never Married	**Living as if married**	**Widowed**	**Divorced**	**Separated**
Nicotine dependant Odds Ratio (95%CI)	**1.466**** (1.297-1.772)	**1.918**** (1.621-2.271)	1.216 (0.952-1.554)	**2.128**** (1.871-2.421)	**2.256**** (1.800-2.830)
Alcohol dependant Odds Ratio (95%CI)	**1.422**** (1.271-1.591)	**1.779**** (1.511-2.094)	1.069 (0.824-1.388)	**1.806**** (1.586-2.056)	**1.812**** (1.438-2.283)
PTSD Odds Ratio (95%CI)	**1.716**** (1.306-2.254)	**2.011**** (1.434-2.820)	**3.559**** (2.031-6.237)	**2.002**** (1.499-2.673)	**1.942**** (1.252-3.014)
Drug Use Disorder Odds Ratio (95%CI)	**2.157**** (1.822-2.553)	**2.638**** (2.108-3.302)	1.325 (0.788-2.228)	**2.180**** (1.811-2.624)	**2.596**** (1.917-3.516)
Depressive Disorders Odds Ratio (95%CI)	**1.815**** (1.574-2.093)	**1.947**** (1.595-2.377)	**2.597**** (1.938-3.480)	**2.018**** (1.730-2.353)	**1.885**** (1.430-2.486)
Affective Disorders Odds Ratio (95%CI)	**1.528*** (1.118-2.089)	**1.930**** (1.326-2.811)	0.828 (0.232-2.953)	**1.892**** (1.314-2.725)	**2.410**** (1.441-4.030)
Anxiety Disorders Odds Ratio (95%CI)	**1.453**** (1.222-1.728)	**1.773**** (1.407-2.235)	**1.444*** (1.052-1.983)	**1.421**** (1.191-1.696)	**1.551*** (1.123-2.142)
Eating Disorders Odds Ratio (95%CI)	1.618 (0.896-2.923)	1.008 (0.470-2.162)	1.373 (0.452-4.169)	1.194 (0.618-2.307)	1.182 (0.336-4.155)
Personality Disorders Odds Ratio (95%CI)	**1.835**** (1.577-2.137)	**2.102**** (1.730-2.554)	**1.470*** (1.048-2.062)	**2.208**** (1.874-2.603)	**2.143**** (1.610-2.851)

Note: *=*p*<.001; **p<.01; *p<.05**

Table 5.4: Regression analysis results for Negative Mental Health Outcomes and Ethnicity/Race.

	Ethnicity/Race (Reference = White, Non-Hispanic)			
	Black	**American Indian, Alaska Native**	**Asian, Native Hawaiian, Pacific Islander**	**Hispanic, any race.**
Nicotine dependant	**0.554****	0.984	**0.496****	**0.346****
Odds Ratio (95%CI)	(0.494-0.620)	(0.703-1.377)	(0.398-0.618)	(0.3007-0.391)
Alcohol dependant	**0.460****	0.997	**0.339****	**0.492****
Odds Ratio (95%CI)	(0.412-0.514)	(0.716-1.386)	(0.273-0.422)	(0.442-0.548)
PTSD	0.970	**1.967***	**0.354***	**1.028**
Odds Ratio (95%CI)	(0.753-1.248)	(1.083-3.572)	(0.170-0.740)	(0.805-1.311)
Drug Use Disorder	**0.632****	1.177	**0.395****	**0.468****
Odds Ratio (95%CI)	(0.541-0.739)	(0.769-1.802)	(0.276-0.565)	(0.396-0.555)
Depressive Disorders	**0.464****	0.886	**0.588****	**0.595****
Odds Ratio (95%CI)	(0.402-0.536)	(0.605-1.297)	(0.459-0.753)	(0.519-0.682)
Affective Disorders	**0.721***	0.890	0.703	0.835
Odds Ratio (95%CI)	(0.537-0.967)	(0.422-1.874)	(0.420-1.178)	(0.630-1.107)
Anxiety Disorders	**0.587****	0.916	**0.485****	**0.590****
Odds Ratio (95%CI)	(0.497-0.695)	(0.598-1.403)	(0.353-0.667)	(0.500-0.697)
Eating Disorders	0.888	2.027	1.906	1.287
Odds Ratio (95%CI)	(0.478-1.649)	(0.695-5.908)	(0.850-4.274)	(0.785-2.111)
Personality Disorders	**0.759****	1.337	**0.508****	**0.715****
Odds Ratio (95%CI)	(0.661-0.873)	(0.912-1.959)	(0.385-0.670)	(0.622-0.822)

Note: *=*p*<.001; **p*<.01; **p*<.05**

Table 5.5: Regression analysis results for Negative Mental Health Outcomes and Age.

	Age (Reference = age 70+ years)				
	18-29 years	**30-39 years**	**40-49 years**	**50-59 years**	**60-69 years**
Nicotine dependant Odds Ratio (95%CI)	1.191 (0.979-1.448)	**1.691**** (1.409-2.030)	**1.486**** (1.237-1.784)	**1.563**** (1.305-1.873)	**1.528**** (1.265-1.845)
Alcohol dependant Odds Ratio (95%CI)	**3.395**** (2.770-4.160)	**3.498**** (3.879-4.251)	**2.905**** (2.389-3.534)	**2.441**** (2.009-2.966)	**2.023**** (1.650-2.480)
PTSD Odds Ratio (95%CI)	**1.784*** (1.043-3.050)	**1.928*** (1.144-3.248)	**2.108**** (1.274-3.486)	**1.974*** (1.182-3.295)	**1.908**** (1.137-3.203)
Drug Use Disorder Odds Ratio (95%CI)	**14.468**** (7.841-26.697)	**15.833**** (8.630-29.050)	**12.635**** (6.897-23.148)	**14.541**** (7.939-26.634)	**7.576**** (4.079-14.071)
Depressive Disorders Odds Ratio (95%CI)	**1.921**** (1.457-2.532)	**2.875**** (2.205-3.748)	**2.593**** (1.997-3.365)	**2.601**** (2.006-3.374)	**2.179**** (1.669-2.843)
Affective Disorders Odds Ratio (95%CI)	**4.722**** (2.053-10.865)	**4.315**** (1.898-9.808)	**4.112**** (1.825-9.266)	**2.919*** (1.281-6.653)	2.192 (0.901-5.335)
Anxiety Disorders Odds Ratio (95%CI)	1.145 (0.859-1.526)	**1.411*** (1.076-1.850)	**1.430*** (1.099-1.861)	**1.633**** (1.256-2.121)	**1.445*** (1.101-1.896)
Eating Disorders Odds Ratio (95%CI)	2.294 (0.756-6.960)	1.841 (0.637-5.317)	**3.158*** (1.114-8.953)	**2.977*** (1.059-8.365)	2.357 (0.756-7.348)
Personality Disorders Odds Ratio (95%CI)	**1.500**** (1.144-1.967)	**1.610**** (1.237-2.094)	**1.393*** (1.074-1.808)	1.285 (0.993-1.664)	1.085 (0.827-1.425)

Note: *=*p*<.001; **p<.01; *p<.05**

5.4 Discussion

The current study examined whether males who were classified into specific interpersonal poly-victimization profiles were at increased risk of psychiatric diagnosis when compared to a non-victimised or normative typology. It was hypothesised that classes evidencing poly-victimization would be at higher risk of negative mental health outcomes when compared to the class that showed low or no victimisation experience. This hypothesis was supported.

For those in the childhood poly-victimised class, over 55% endorsed multiple diagnosis of any psychopathology. Alarmingly, among the participants classified in the life-course poly-victimization class, almost half of participants endorsed three or more psychopathologies. Among the many findings of concern in the current study is that both the childhood poly-victimised class and the life-course poly-victimised class showed elevated odds (OR's) of a psychiatric diagnosis across all the negative mental health indicators assessed.

Indeed, the childhood poly-victimization class showed a particularly elevated risk, almost four times that of the reference class for diagnosis of PTSD, further the risk of diagnosis with a personality disorder was over four and a half times more likely when compared to the reference class. This concurs with Palíc and Elklit (2014) in their examination of Bosnian refugees who query the resemblance between Complex PTSD and Personality Disorders. The investigation of Adverse Childhood Experiences has produced a plethora of literature, all of which agrees these experiences have

deleterious results. However, where childhood victimisation includes the sexual abuse of boys it is associated with greater force used against the victims, and a larger age difference between victim and perpetrator (Doll et al., 1992; Fromuth & Burkhart, 1987) with notable exceptions; where the child was older than 12 years or the perpetrator is an adult female, 88% of those male victims of a female perpetrator reported the abuse as a positive experience (Doll et al., 1992; Haugaard & Emery, 1989; Okami, 1991).

Bowlby (1988) linked violence within the family environment as attributing to psychopathology in children, while also warning of the transgenerational impact of negative parenting and care. He further explained how this environment, carried on from one generation to the next and contributes to the fear of abandonment in children, impacting the development of personality in the child. Indeed, Kessler et al. (2010) examined data from the WMH Survey Initiative and reported that adversities and victimisation in childhood account for 29.8% of all negative mental health outcomes universally. This was further unpacked by Green et al. (2010) who conveyed that, victimisation experiences in childhood that are related to maladaptive functioning within the family have a particularly detrimental impact. Indeed, this has been termed "*complex trauma*" (van der Kolk, 2005. p 402), where multiple adverse interpersonal childhood experiences are often chronic in nature over prolonged time spans.

Finklehor elaborated on the impact of victimisation in children, bringing forward the notion that when a child experiences one victimisation experience, they are more

likely to have experiences more than one, this became known as poly-victimization (Finklehor et al., 2007). This theory can be expanded beyond childhood to include all developmental periods across all of the life-course.

The life-course interpersonal poly-victimization class showed a similar pattern of increased odds when compared to the reference class however, the risks associated with diagnosis of each psychiatric diagnoses was higher again than childhood poly-victimized class. In the case of PTSD diagnosis, the risk was elevated to over five times the odds and for the diagnosis of personality disorders, this increased to over six times more likely. This is of particular concern given that for some victims where childhood sexual abuse is endorsed, PTSD is resistant to treatment (Fletcher, Elklit, Shevlin & Armour, 2017). Indeed, of further notable concern, over 30% of this class endorsed four or more psychiatric diagnoses over the life-course. The disparate results evidenced between the childhood and life-course classes further support the theory that the cumulative impact of trauma leads to elevated symptomology and diagnosis of negative mental health outcomes in a dose-response fashion (Scott-Storey, 2011). Indeed, given that men are notorious for not disclosing these experiences even in population and epidemiological studies (Romaniuk & Loue, 2017) and that, in truth, very few ever come to the attention of the police or child protection services, these results could underestimate the true prevalence and impact of these experiences. This lack of reporting may be linked to how boys and men perceive victimisation experiences that they have endured. Male specific gender stereotypes that are reinforced by societal pressures such as those described by Lips (2017) where males are assumed to be strong and tough may impact or distort the

male perception of victimisation experience. Indeed, there may be elements of alexithymia in that, males who are socialised to be unemotional may not possess the language or emotional labels to recognise their experiences as a victimisation experience worthy of acknowledging or reporting to authorities. Indeed, this lack of acknowledgement may be more complicated than just a social construct as it may include elements of evolutionary fitness.

Low Socioeconomic status (SES) was assessed as the receipt of government aid at some time across the past 12 months and was evidenced to be a risk factor for all negative mental health outcomes. Low SES has been investigated extensively. Poverty is associated with a variety of negative outcomes, geographical pockets of impoverishment have been shown to have a positive association with sexual and physical abuse and neglect (Drake & Pandey, 1996). This was further supported by Freisthler, Merritt and LaScala (2006) who, while controlling for a lack of family resources, found that deprived areas continued to exhibit a stable correlation to increased endorsement of physical abuse.

In general, being married is shown as being a protective factor in relation to the risk of psychopathology and this concurs with the findings of Horwitz, White and Howell-White (1996), who noted that being married offered a higher level of psychological well-being than that experienced by those who never marry. Of note, being widowed showed the highest odds of endorsing PTSD, Depressive Disorders and Eating Disorders.

The current study found that being white, non-Hispanic (Caucasian) was for the most part, a risk factor for psychiatric diagnosis when compared to other categories of ethnicity and race. However, this was not the case when examining eating disorder diagnosis and this appears consistent across the extant literature, for example Perez, Ohrt and Hoek (2016) found similarities in the prevalence rates of eating disorders over the life-course when comparing Hispanic and non-Hispanic populations in the United States. Indeed Burnett-Zeigler, Bohnert and Ilgen (2013) found that a strong ethnic identity is a protective factor against diagnosis of a psychiatric disorder.

Old age was shown to be a protective factor for all negative mental health outcomes examined in the current study. This is particularly evident when examining drug use disorders where everyone under 60 years of age was at much great risk of being diagnosed with a drug use disorder (*OR's* =12.635-15.833).

5.4.1 Limitations

The current results should be viewed in light of several limitations. As outlined in chapter 4, the NESARC III data was focused on the prevalence and impact of alcohol use and related conditions, as such victimisation experiences were not the focus. Diagnostic categories have been made in line with the DSM-5 and whilst utilising the diagnostic criteria for psychopathology aids the understanding of the impact of victimisation, it does however pose a query regarding diagnostic orphans, that is,

those who are symptomatic but fail to reach the threshold for a diagnosis therefor, the impact of interpersonal poly-victimization could be gravely underestimated.

5.4.2 Conclusion

The current study found that interpersonal poly-victimization increases the risk of psychiatric diagnosis over the life-course across nine negative mental health outcomes. Adverse Childhood Experiences increase the risk of being diagnosed with a negative mental health disorder while experience of interpersonal poly-victimization across the life-course further increases that risk in a dose-response fashion. Being white non-Hispanic increases the risk while being over 70 years of age decreases the risk. Low SES increases the risk while being married is a protective factor. These findings reveal the stark threat posed to mental health by the cumulative nature on interpersonal poly-victimization both during specific developmental periods such as childhood and across the life-course.

Chapter 6:

Interpersonal Poly-victimization and negative Psychopathology: the mediating role of Physical Health

6.1 Introduction

Chapter 5 outlined the relationship between class of interpersonal poly-victimization and nine DSM-5 diagnostic categories of psychopathology. The findings demonstrated that membership of the childhood specific class of interpersonal poly-victimization was a risk factor for meeting the diagnostic criteria of all the psychopathologies examined. Further, membership of the life-course interpersonal poly-victimized class increased the risk of meeting the diagnostic criteria of all psychopathologies in a dose-response fashion when compared to the normative class and the childhood poly-victimized class. The current chapter will begin to explore other factors that may impact the relationship between class of interpersonal poly-victimization and negative mental health outcomes. A review of the extant literature was examined for guidance to potential factors that may impact this relationship. This chapter will test how self-perceived physical well-being mediates the relationship between typologies of interpersonal poly-victimization and psychopathology. Literature will be introduced pertaining to the association between interpersonal victimisation experiences and physical well-being, and the association between physical wellbeing and mental health.

Experience of traumatic events is widely reported to be a risk factor for mental health difficulties. For some, traumatic experiences can be very personal, targeted and chronic in nature, and experiences can be spread across the entire lifespan. This could include sexual, physical or psychological victimisation experiences in childhood, adolescence, adulthood or old age. Recent research has demonstrated

how the cumulative effects of the impact of multiple traumatic experiences, known as poly-victimization, impacts victims. Interpersonal victimisations are a specific type of trauma and often include a perpetrator who is known to the victim, frequently with a familial relationship such as a parent, sibling, child or romantic partner.

6.1.1 Trauma as a risk factor for mental health outcomes

Interpersonal poly-victimization has been examined to some extent in relation to psychopathology, however the majority of this research has concentrated on female only samples (Cavanagh et al., 2013), occasionally mixed samples (May-Chahal & Cawson, 2005), or has concentrated on a single developmental period (Finklehor, 2010). Life-course interpersonal poly-victimization has not been examined with any consistency, and certainly not to the same extent as poly-victimization in specific developmental periods or in female only samples; there is a distinct lack of life-course interpersonal poly-victimization research carried out in male only samples.

Interpersonal poly-victimization has been identified as highly predictive of psychopathology. Amongst men interviewed in the NESARC II epidemiological study (n=14,477) (Burns et al., 2015), four latent classes of victimisation profiles emerged including: (1) a class of low or no victimisation experience; (2) a class categorised as high witnessing of domestic violence; (3) an adult specific poly-victimization class and, (4) a class of life-course poly-victimization, where all interpersonal poly-victimization profiles exhibited elevated odds of endorsing negative mental health

outcomes including PTSD, depression and anxiety disorder, when compared to adults with low or no victimisation.

6.1.2 Trauma as a risk factor for Physical ill-health

Interpersonal victimisation experiences have also been shown to impact physical health outcomes. In a seminal paper, Feletti et al. (1998) examined Adverse Childhood Experiences (ACEs) in a sample of 9,508 adults, experiences including sexual, physical and psychological abuse were reported and the analysis showed that for those who had experienced multiple exposure to adverse experiences as children, they endorsed increased risk of alcohol and drug use problems, as well as a poor self-reported health scores in adulthood. Gilbert et al. (2009) reported that adverse experiences in childhood were highly associated with severe and chronic mental and physical health outcomes including heart disease, lung disease and cancer. Goldsmith, Freyd and DePrince (2012) investigated adult physical health outcomes in a sample of 185 undergraduate students. Symptoms such as depression or anxiety endorsed by the participants who had victimisation experiences at the hand of a person known, related to or trusted by the victim, were found to mediate the relationship between victimisation and physical health outcomes. Further, type of trauma, severity and chronicity have been shown to result in differing negative outcomes (Scott-Storey, 2011). This would confirm that the relationship between interpersonal victimisation experiences and adult physical and psychological health is a multi-faceted and complex one.

Directly correlated to physical health, it is argued that the biological stress response plays an integral and causal role in health (McEwen & Rasgon, 2018). When these complicated biological pathways are activated by chronically high levels of stress, as in the case of multiple traumatic or victimisation experiences, this results in elevated cortisol reactions, that are chronic in nature and keep the body in a state of fight or flight readiness rather than returning the body to a state of homeostasis (Lovallo, 2015). Thus, physical and psychological health outcomes are negatively impacted *(*Flinn, Nepomnaschy, Muehlenbein & Ponzi, 2011; McEwen & Rasgon, 2018*).* Indeed, chronic stress associated with multiple traumatic experiences activates the sympathetic nervous system releasing fatty acids into the bloodstream. When these fatty acids are not employed for the body's energy requirements, they are synthesized into cholesterol, a build-up of which has been shown to cause heart problems *(*Castelli et al., 1986; Rayner & Trayhurn, 2001).

This is particularly relevant for those who may have a biological and pre-dispositional vulnerability. The diathesis-stress model may help to explain this interaction, where the persistent and over stimulated stress response to multiple interpersonal poly-victimization experiences and other stressors interfer with the homeostatic state of the person and may impact their health (Oatley, Keltner, & Jenkins, 2006b). Indeed, the diathesis-stress model of health purports that when the impact of a diathesis, such as a genetic or biological predisposition, is impacted by a stressor or multiple stressors that exceed a person's threshold to cope, the person is at increased risk of developing various disorders *(*Gazelle & Ladd, 2003; Ingram & Luxton, 2005*;* Ormel et al*.,* 2013*).* Research of this nature may in time, help to explain why certain people

who are exposed to a similar experience develop physical or mental health problems while others do not.

The National Health Interview Survey, a national survey conducted by the Centre for Disease Control and Prevention (CDC, 2015) to assess the physical health state of the America population, showed that 12% of the male population rate their health state as poor or fair. Sweeney, Air, Zannettino, Shah and Galletly (2015) stated that males who have experienced adverse childhood experiences or trauma were at increased risk of endorsing symptoms or cardiovascular disease, stroke and severe headaches. Coping with physical manifestations of interpersonal trauma and victimisation, and the inability to physically function in everyday mundane tasks may play a part or partially explain negative mental health outcomes for victims of interpersonal poly-victimization. Previous research as outlined here, suggests that physical and mental health are separate outcomes however, it is important to understand the interaction and impact self-perceived physical health status has on the relationship between interpersonal poly-victimization and psychopathology.

6.1.3 Physical ill health as a risk factor for mental ill health

Staying physically well often depends on staying active or the ability to stay active. However, staying physically active has also been related to mental health. Harteseu, Morgan and Stevinson (2015) showed that physical activity can boost energy levels, increase endorphin levels and improve sleep, as well as significantly reduce anxiety

and depression symptomology. Further, Demyttenaere et al. (2007) showed that for people experiencing chronic pain, which can be a barrier to being active, mental health difficulties are more prevalent than for those who do not experience chronic pain.

Physical activity can be thought of in two ways. Structured activity can include membership of a gym where exercise programs are supervised by a trainer, but this can often be quite costly and, given low SES is a risk factor for mental health (see Chapter 5), this may be difficult for those most at risk of mental health problems to access. Lifestyle activity, on the other hand, is free and interventions to increase lifestyle activity have been shown to be more effective in increasing the level of general physical activity (Dunn et al., 1995; Slattery, Edwards, Boucher, Anderson & Caan, 1999). Indeed, Robertson, Robertson, Jepson and Maxwell (2012), looked at the relationship between physical activity and mental health and reported that simply walking more has a significant positive impact on depression symptomology. Health promotion campaigns consistently relay the message that exercise is good for physical and mental health and these campaigns appear to be based on a sound rational (Richardson et al., 2005). Indeed, Richardson, et al. (2005), proposed that the psychological impact of exercise and activity for depressed patients, are comparable to outcomes of psychotherapeutic treatments. Paffenbarger, Lee and Leung (1994) found that rates of depression recorded in a cohort of 10,201 Harvard alumni were lower for those who were physically active or played sports.

There is strong evidence to support the association between physical and mental wellbeing (Nabi et al., 2008; Ohrnberger, Fichera and Sutton, 2017; Surtees et al., 2008). Indeed, Korge and Nunan (2018) argue that the physical activity and wellbeing of populations with mental health problems is so low when compared to the general population that morbidity and early death are an elevated risk.

6.1.4 Eating disorders as a special consideration

While research connects lack of activity and exercise to the risk of physical health such as heart disease, lung disease and cancer (Gilbert et al., 2009), and mental health in the form of depression (Richardson, et al., 2005), it has been reported that a persistent high level of physical exercise is implicated in the symptomology of eating disorders. While not included in the diagnostic criteria of the DSM-5 for eating disorders, there is evidence that a substantial number of eating disorder patients also present with excessive exercise habits (Shroff et al., 2006). Indeed, some researchers have suggested that excessive exercising may be an important factor in the pathogenesis of the maintenance of eating disorders (Davis, Kennedy, Ralevski, & Dionne, 1994), particularly anorexia nervosa (Davis et al., 1997). Where eating disorders are concerned, patients may feel physically fit and be exercising (or over exercising) as part of the symptomology therefore, eating disordered patients may have an enhanced sense of physical wellbeing. Of note, research into eating disorders in relation to poly-victimization experience is for the most part female centric, as is the vast majority of victimisation research (see Chapter 1).

6.1.5 Aims and Objectives

This current study will: 1) identify if the level of self-perceived physical health status mediates the relationship between a childhood class of interpersonal poly-victimization, a class of life-course interpersonal poly-victimization and the associated psychopathological outcomes when compared to a normative class, 2) establish that self-perceived physical health status is not implicated in the relationship between class of interpersonal poly-victimization and diagnosis of an eating disorder when compared to a normative class.

6.2 Method

6.2.1 Sample

The sample was drawn from Wave III of the National Epidemiological Survey on Alcohol and Related Conditions (NESARC III; Grant, Amsbary & Chu, 2014). Data collection was carried out from 2012 -2013 by the NIAAA. Participants were American, non-institutionalised civilian population and military group living quarters. Data were weighted in order to account for characteristics of the design including the oversampling of Blacks, Hispanics, Asians and Pacific Islanders. Data specific to the male sub population utilised in the Latent Class Analysis (see chapter 3) was used in this study (n=15,794). Comprehensive methodologies relevant to the NESARC III survey are available in Chapter 2.

6.2.2 Measures

6.2.2.1 Demographics

The NESARC III data includes a wide range of demographic information. Current marital status was queried by one question and the NESARC III categories were preserved, responses were coded as (1) never married, (2) living as if married, (3) widowed, (4) divorced, (5) separated, with (6) married retained as the reference class. Ethnicity/Race data were coded as (1) Black, non-Hispanic, (2) American Indian, Alaska Native, non-Hispanic, (3) Asian, Native Hawaiian, Other Pacific Islander, non-Hispanic, (4) Hispanic, any race, (5) White, non-Hispanic (Caucasian), where White, non-Hispanic (Caucasian) is retained as the reference class.

6.2.2.2 Diagnostic Assessment

Psychopathology diagnosis is made in line with the criteria of Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5), and is utilised in the NESARC III using the AUDADIS-5 diagnostic interview (see Chapter 3). Trained interviewers administered the AUDADIS-5 during data collection, which queries lifetime and past year self-reports on various mental health disorders including anxiety, depression and PTSD.

Data on negative mental health disorders identified as life-time were utilised in the current study. PTSD, tobacco use disorder and alcohol use disorder were individually

reported within the data, while DSM-5 diagnostic categories were used to create a further six composite variables (see Chapter 5).

6.2.2.3 Physical Health

NESARC III queries the self-perception of physical and psychological health state, where participants rate their physical and mental health state by self-report, separately as part of the data collection, utilising the SF12-V2R Physical and Mental Health Summary Scales instrument (Ware, Kosinski & Keller, 1995). The SF12-V2R asks 12 questions that are assessed in eight separate scales, four of which; Physical Functioning, Role-Physical, Bodily Pain and General Health sum to give the Physical Health Summary Scale. The scale is subject to norm-based scoring on norms for age within the American general population, giving a mean of 50 and 1SD = 10 (Utah Health Status Survey, 2001). The SF12-V2R Physical Health Summary scale is included in the dataset as a scaled variable: a lower score indicated lower physical health and a higher score indicates higher physical health, maximum range 0-100.

The Physical Health Composite Score of the SF12-V2R shows excellent reliability (α = 0.89) in the US population (Wear & Gandek, 1998) and is used extensively in large scale research. For a detailed description of the SF12-V2R see chapter 3.

6.2.3 Analysis

6.2.3.1 Latent Classes

Latent class typologies were established previously in this epidemiological data (see Chapter 3). A three-class solution was deemed the best fit for the data. One group were labelled as victims of life-course interpersonal poly-victimization and consisted of 3.1% of the population, a second group (20.9%) were categorised as victims of childhood specific interpersonal poly-victimization, and the final class (76%) were categorised as low or no risk of life-course interpersonal poly-victimization. Missing data was evaluated during the LCA as per chapter 4, and no additional cases were removed from the dataset leaving 15,794 cases advancing to the analysis.

6.2.3.2 Mediation analysis

While a regression analysis can expose the predictability of a variable (X) on an outcome variable (Y), as seen in chapter 4 (*c path*; see Figure 1), the inclusion of a third (or subsequent) variable (M) may influence this relationship and the outcome variable. Mediation analysis explains the relationship between these variables. While MacKinnon, Fairchild and Fritz (2007) argued mediation is a causal model, Hayes (2018) argued that there is no prerequisite to establish causality.

In mediation analysis the mediator (M) is the intervening variable, while the '*a*' path is the effect of X on the mediating variable and the *b* path is the effect of M on Y, the

indirect effect is the difference between c and *cprime* (*c* & *c'*; see Figure 6.2). The proposed indirect path in this analysis, the effect of X on Y while controlling for the mediator variable, is expected to lower the strength of the relationship between X and Y when M is introduced into the model (cf. Jose, 2013).

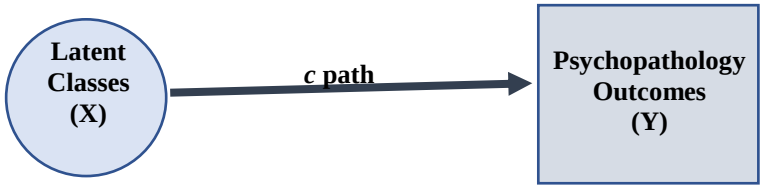


Figure 6.1: Direct path from X to Y (*c*).

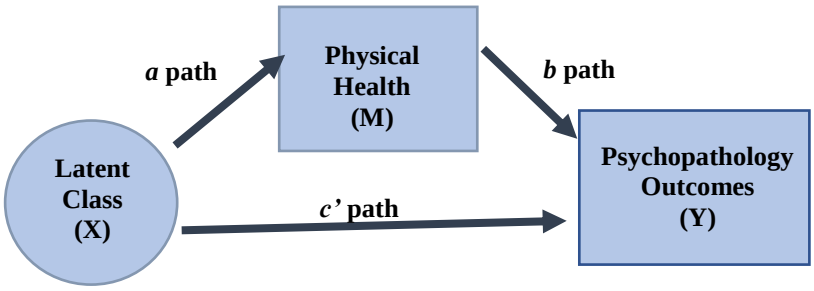


Figure 6.2: Indirect path from X to Y via M

There are several steps recommended when conducting mediation (Baron & Kenny, 1986).

Baron and Kenny (1986) proposed that a bivariate correlation analysis should be carried out between the three variables to examine if there is a significant correlation between X and Y, X and M, and M and Y. Non-significant relationships do not meet the assumptions for this analysis and should be removed from the model. However,

Bollen (1989) maintained that even when correlation is not present, causation is not disproved. Thus, this initial stage has been eliminated from the analytic plan.

First stage: A regression analysis is conducted to estimate path *c* (see Figure 1) with the covariates and the mediator paths fixed to zero. This is then repeated controlling for covariates in step 2 while the paths to and from the mediator (path *a* and path *b*) remain fixed at zero. Controlling for covariates is an important step in mediation analysis, the most common would be gender and age however the data used in this analysis is male only and the SF12-V2F is mean normed to age therefore these were not included in the current analysis. Current marital status and Ethnicity/Race were included in the analysis and were dummy coded.

Second stage: The effect of X on Y is tested for, whilst controlling for M – in this instance all pathways are freed. A statistically significant result suggests that mediation is occurring. Full mediation occurs when c' becomes non-significant, where X is not significantly impacting Y when the mediator is controlled for.

In the current study, the independent variables (X) were the three latent classes of interpersonal poly-victimization established by latent class analysis in Chapter 3. These were dummy coded with the reference class being the low/no victimisation class as in chapter 4. Three models were specified and estimated to establish if self-reported physical health state mediates the relationship between interpersonal poly-victimization class and negative mental health outcomes. All analysis was carried out using SPSS V23 and MPlus V7.4 (Muthén & Muthén, 1998-2016) using the robust

maximum likelihood (MLR) estimator and Monte Carlo integration. Monte Carlo integration is recommended when a weight variable is included in this analysis as bootstrapping cannot be performed (Preacher & Selig, 2012).

6.3 Results

6.3.1 Interpersonal Poly-victimization

In Chapter 3, a latent class analysis established three profiles of interpersonal poly-victimization across the life-course; a low/no endorsement class, a childhood specific poly-victimization class and a life-course poly-victimization class. The low/no endorsement class is considered the reference class and represented 76% of the population. The childhood specific class was characterised by endorsement of multiple interpersonal victimisations across childhood including sexual, physical and psychological victimisations and represented 20.9% of the total population. The final class, the life-course poly-victimization class showed endorsement of interpersonal poly-victimization experiences across the life-course including childhood, adolescent and adult experiences of sexual, physical and psychological victimisations. This class represents 3.1% of the population.

6.3.2 Psychopathology

As seen in Chapter 5, regression analysis established predictability of nine negative mental health outcomes from the latent classes with the childhood specific poly-victimization class showing elevated odds of experiencing all psychopathologies when compared to the reference class. Further, the life-course poly-victimization class showed further increased risk across all psychopathologies in a dose-response fashion.

6.3.3 Physical Health

The physical health composite score of the SF12-V2R showed for this population an overall mean of 49.915 (sd=10.437). Mean and standard deviation scores on the SF12-V2R for the three latent classes are shown in table 6.1.

Table 6.1: Results from the Physical Health Composite Score by latent classes.

	% population (*n*)	mean	sd
No/ low victimisation	76% (11,812)	50.03	10.03
Childhood specific poly-victimization	20.9% (3,476)	48.09	11.22
Life-course poly-victimization	3.1% (506)	48.65	11.25

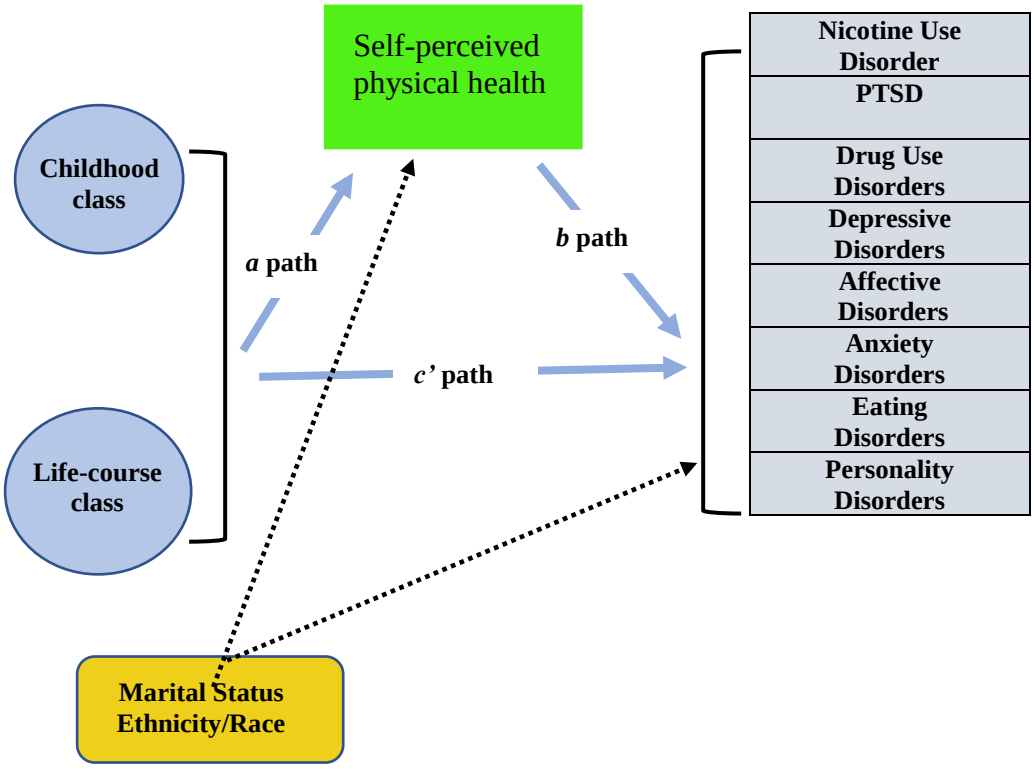


Figure 6.3: Final mediation model: The relationship between class of poly-victimization and negative mental health outcomes mediated by self-perceived physical health.

6.3.4 Mediation Analysis

Three models were specified and tested. A range of model fit indices were considered to determine the best model fit for the data. Lower scores indicate the best model fit across the considered fit indices including the Akaike Information Criterion (AIC: Akaike, 1987), the Bayesian Information Criterion (BIC: Schwarz, 1978) and the sample size adjusted Bayesian Information Criterion (SSABIC: Sclove, 1987), results are presented in Table 6.3. Log-likelihood values from the Chi-square tests, obtained

from the MLR estimation were also considered to determine model fit with Model 3 showing significant superiority.

Table 6.2: Fit Indices of the three mediation models

Model	Log-likelihood	Free parameters	AIC	BIC	SSABIC
1	-109376.596	29	218811.193	219033.547	218941.387
2	-107926.406	110	216072.813	216916.225	216566.653
3	-107131.894	130	214523.788	215520.549	215107.418

Note: AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; SSABIC = sample size adjusted Bayesian Information Criterion.

Model 1:

Direct effects (*c* path) between the interpersonal poly-victimization classes and the eight psychopathologies were all significant in line with results from the previous chapter (see Chapter 4). Those in the childhood specific interpersonal poly-victimization class showed increased odds on all psychopathologies ranging from almost two and a half times as likely to meet the diagnostic criteria for eating disorders to over four and a half times as likely to endorse the criteria for personality disorders. Those classified in the life-course interpersonal poly-victimization class showed further increased risk in a dose response fashion, showing increased odds on all psychopathologies ranging from over almost two and a half times as likely to meet the DSM-5 diagnostic criteria for eating disorders to almost seven times as likely to endorse the criteria for personality disorders. Results can be seen in Tables 6.3 to 6.11.

Model 2:

In Model 2, Marital Status and Ethnicity/Race were included as covariates and the direct effects of interpersonal poly-victimization class on psychopathology remained significant. Significant improvement in model fit was evident after the inclusion of the covariates (*Δχ2 =* 1194.556*, df =* 81*, p<* .001*).* Although marital status did not predict eating disorders, being married was protective of meeting the diagnostic criteria of PTSD, drug use disorder and depression when compared to all other marital status categories. Being white was, in general, protective against drug use disorder, depression and anxiety disorders.

Model 3:

Model 3, the full mediation model (*a'* path) showed significant improvement with the addition of the Physical Health mediator from the Chi square test (*Δχ2 =* 537.668*, df =* 20*, p<* .001*)*. When the Physical Health mediator was included, all significant pathways between the interpersonal poly-victimization classes and psychopathological outcomes remained significant with reduced odds, in all cases except two; Childhood poly-victimization and affective disorders and, life-course poly-victimization and eating disorders, demonstrating partial mediation has occurred in all cases except these two. A range of indirect effects were exposed for interpersonal poly-victimization classes and covariates (Marital Status and Ethnicity/Race) in the negative mental health outcomes via Physical Health (see tables 6.3 to 6.11).

Several results from the analysis are noteworthy. Being widowed or of Asian/Hawaiian decent was not predictive of Nicotine use disorder. Being Black or American Indian/Alaskan is not predictive of a diagnosis of PTSD nor impacted by the inclusion of the self-perceived physical wellbeing mediator. When introduced to the model, the covariates impact the relationships between the interpersonal poly-victimization classes and drug use disorder except for those who are Asian/ Hawaiian and this remains the case when physical health is introduced as a mediator. Being White and being married are protective of a diagnosis of depression and affective disorder however, when physical health is introduced into the model, it partially mediates the relationship between the risk of diagnosis of depression and both the childhood specific interpersonal poly-victimization class, and the life-course interpersonal poly-victimization class.

Physical health partially mediates the relationship between class of interpersonal poly-victimization and the diagnosis of anxiety disorder except were someone is widowed or endorsed Asian/ Hawaiian ethnicity. The introduction of the covariates and the self-perceived physical health mediator into the model assessing the relationship between interpersonal poly-victimization class and the risk of diagnosis of eating disorders shows a non-significant result for mediation. Physical health partially mediated the relationship between interpersonal poly-victimization class and the risk of diagnosis with personality disorder however, for those who were widowed compared to those who were married, and for those who endorse Asian/ Hawaiian ethnicity compared to those who endorsed being White, results were non-significant.

The indirect effect from interpersonal poly-victimization class and from all marital status categories and race through physical health to nicotine use disorder, PTSD, drug use disorder, depression, anxiety disorders, eating disorders and personality disorders were significant except for those who endorsed their marital status as separated. The indirect effect from interpersonal poly-victimization class, and from all marital status categories and race through physical health to affective disorders were non-significant (see Tables 6.3 to 6.11).

Table 6.3: Odds Ratios and Confidence Intervals for direct and indirect effects of Interpersonal Poly-victimization classes on **Nicotine Use Disorder** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	2.136 *** (1.945-2.346)	2.118*** (1.923-2.333)	1.995*** (1.809-2.201)	0.071(0.009)***
Life-course Class	2.967 *** (2.379-3.700)	2.724*** (2.171-3.418)	2.609*** (2.075-3.281)	0.059(0.017)***
Never Married	-	1.348*** (1.218-1.493)	1.500*** (1.352-1.664)	- 0.093(0.009)***
Living as if married	-	2.039*** (1.737-2.394)	2.142*** (1.821-2.521)	- 0.034(0.011)***
Widowed	-	0.936 (0.746-1.175)	0.788* (0.629-0.988)	0.169(0.023)***
Divorced	-	2.142*** (1.883-2.437)	2.053*** (1.803-2.338)	0.058(0.011)***
Separated	-	2.414** (1.936-3.010)	2.414*** (1.929-3.022)	0.018(0.016)
Black		0.369*** (0.327-0.417)	0.375*** (0.332-0.424)	- 0.026(0.007)***
American Indian/Alaskan Native		0.634*** (0.568-0.708)	0.619*** (0.554-0.691)	-0.017(0.007)*
Asian/ Hawaiian		1.096 (0.788-1.524)	0.977 (0.695-1.373)	- 0.113(0.030)***
Hispanic		0.487*** (0.392-0.605)	0.505*** (0.405-0.629)	- 0.040(0.010)***
Physical Health	-	-	0.973*** (0.969-0.977)	- -

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.4: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Alcohol Use Disorder** via Physical Health

	Direct effects			**Indirect effects**
Variable	Model 1 OR (95%CI)	Model 2 OR (95%CI)	Model 3 OR (95%CI)	Physical Health (Sf12v2) B (SE)
Childhood Class	1.883*** (1.717-2.065)	1.906*** (1.732-2.097)	1.923*** (1.747-2.117)	-0.009(0.005)
Life-course Class	2.656*** (2.130-3.312)	2.442*** (1.955-3.050)	2.460*** (1.970-3.072)	-0.007(0.005)
Never Married		1.798*** (1.632-1.982)	1.778*** (1.612-1.962)	0.011(0.007)
Living as if married		2.269*** (1.938-2.657)	2.260*** (1.930-2.646)	0.004(0.003)
Widowed		0.621*** (0.486-0.793)	0.633*** (0.496-0.809)	-0.021(0.013)
Divorced		1.780*** (1.567-2.021)	1.792*** (1.578-2.036)	-0.007(0.004)
Seperated	-	2.045*** (1.629-2.568)	2.049*** (1.632-2.574)	-0.002(0.002)
Black		0.557*** (0.501-0.619)	0.555*** (0.499-0.617)	0.003(0.002)
American Indian/Alaskan Native		0.500*** (0.445-0.557)	0.500*** (0.449-0.557)	-0002(0.002)
Asian/Hawaiian		1.048 (0.758-1.449)	1.062 (0.767-1.470)	-0.014(0.009)
Hispanic		0.366*** (0.296-0.454)	0.364*** (0.294-0.451)	0.005(0.003)
Physical Health	-		1.003 (0.999-1.007)	- -

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.5: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal Poly-victimization classes on **PTSD** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	4.561*** (3.746-5.554)	4.364*** (3.578-5.323)	3.972*** (3.250-4.855)	0.095(0.014)***
Life-course Class	5.990*** (4.091-8.771)	5.389*** (3.675-7.900)	5.025*** (3.395-7.439)	0.080(0.025)***
Never Married		1.672*** (1.311-2.131)	1.961*** (1.535-2.506)	-0.125(0.016)***
Living as if married		2.181*** (1.571-3.029)	2.320*** (1.665-3.234)	-0.046(0.015)**
Widowed		2.581*** (1.557-4.277)	2.056** (1.219-3.469)	0.227(0.036)***
Divorced		2.039*** (1.533-2.712)	1.874*** (1.397-2.516)	0.078(0.016)***
Separated	-	2.152*** (1.374-3.372)	2.062*** (1.318-3.227)	0.025(0.021)
Black		1.055 (0.830-1.340)	1.128 (0.886-1.437)	-0.034(0.009)***
American Indian/Alaskan Native		1.069 (0.837-1.367)	1.076 (0.839-1.382)	0.023(0.010)*
Asian/ Hawaiian		2.142*** (1.187-3.863)	1.864* (1.030-3.374)	0.151(0.044)***
Hispanic		0.341*** (0.165-0.707)	0.376** (0.182-0.776)	-0.054(0.014)***
Physical Health	-	-	0.964*** (0.956-0.972)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.6: Odds Ratios and Confidence Intervals for direct and indirect effects of Interpersonal Poly-victimization classes on **Drug Use Disorder** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	2.731*** (2.413-3.090)	2.775*** (2.442-3.153)	2.685*** (2.359-3.056)	0.033(0.008)**
Life-course Class	3.852*** (3.003-4.941)	3.340*** (2.600-4.290)	3.250*** (2.524-4.183)	0.027(0.010)**
Never Married		2.903*** (2.511-3.358)	3.051*** (2.634-3.534)	-0.043(0.010)***
Living as if married		3.571*** (2.889-4.413)	3.643*** (2.947-4.505)	-0.016(0.006)**
Widowed		0.537*** (0.325-0.888)	0.497** (0.299-0.827)	-0.078(0.020)***
Divorced		2.190*** (1.826-2.625)	2.135*** (1.779-2.562)	0.027(0.008)***
Separated	-	3.167*** (2.347-4.272)	3.143*** (2.328-4.242)	0.008(0.007)
Black		0.529*** (0.446-0.626)	0.535*** (0.452-0.635)	-0.012(0.004)**
American Indian/Alaskan Native		0.724*** (0.622-0.843)	0.720*** (0.618-0.838)	0.008(0.004)*
Asian/ Hawaiian		1.300 (0.861-1.962)	1.233 (0.821-1.852)	0.052(0.018)**
Hispanic		0.408*** (0.286-0.584)	0.417*** (0.292-0.597)	-0.018(0.006)**
Physical Health	-	-	0.988*** (0.982-0.993)	- -

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.7: Odds Ratios and Confidence Intervals for direct and indirect effects of Interpersonal Poly-victimization classes on **Depressive Disorders** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	2.651*** (2.381-2.951)	2.685*** (2.407-2.995)	2.603*** (2.331-2.907)	0.032(0.007)***
Life-course Class	3.526*** (2.787-4.460)	3.290*** (2.598-4.167)	3.208*** (2.526-4.073)	0.026(0.009)**
Never Married		1.781*** (1.575-2.014)	1.865*** (1.647-2.112)	-0.042(0.009)***
Living as if married		2.082*** (1.725-2.513)	2.120*** (1.756-2.559)	-0.015(0.005)**
Widowed		1.703*** (1.303-2.226)	1.584*** (1.206-2.079)	0.075(0.018)***
Divorced		2.059*** (1.770-2.397)	2.011*** (1.729-2.342)	0.026(0.007)***
Separated	-	2.099*** (1.589-2.773)	2.085*** (1.576-2.760)	0.008(0.007)
Black		0.627*** (0.547-0.718)	0.635*** (0.554-0.727)	-0.012(0.004)**
American Indian/Alaskan Native		0.512*** (0.445-0.590)	0.509*** (0.442-0.586)	-0.008(0.003)*
Asian/ Hawaiian		0.964 (0.656-1.416)	0.916 (0.624-1.346)	-0.050(0.016)**
Hispanic		0.594*** (0.465-0.758)	0.607*** (0.475-0.774)	-0.018(0.006)***
Physical Health	-	-	0.988*** (0.983-0.993)	- -

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.8: Odds Ratios and Confidence Intervals for direct and indirect effects of Interpersonal Poly-victimization classes on **Affective Disorders** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	2.147*** (2.302-3.600)	2.842*** (2.271-3.557)	2.763*** (2.198-3.473)	0.026(0.014)
Life-course Class	4.147*** (2.735-6.289)	3.691*** (2.398-5.679)	3.603*** (2.337-5.557)	0.022(0.013)
Never Married		2.058*** (1.574-2.690)	2.138*** (1.635-2.796)	-0.035(0.019)
Living as if married		2.561*** (1.778-3.688)	2.595*** (1.802-3.738)	-0.013(0.008)
Widowed		0.407 (0.120-1.382)	0.382 (0.110-1.326)	-0.063(0.034)
Divorced		1.896*** (1.322-2.719)	1.855*** (1.290-2.666)	0.022(0.012)
Separated	-	2.847*** (1.690-4.796)	2.817*** (1.670-4.751)	0.007(0.007)
Black		0.924 (0.698-1.223)	0.936 (0.707-1.240)	-0.010(0.006)
American Indian/Alaskan Native		0.791 (0.591-1.059)	0.790 (0.590-1.058)	-0.006(0.004)
Asian/ Hawaiian		0.961 (0.454-2.034)	0.922 (0.436-1.949)	-0.042(0.025)
Hispanic		0.721 (0.438-1.218)	0.745 (0.447-1.242)	-0.015(0.009)
Physical Health	-	-	0.990 (0.979-1.000)	-0.055(0.029)

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.9: Odds Ratios and Confidence Intervals for direct and indirect effects of Interpersonal Poly-victimization classes on **Anxiety Disorder** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	2.586*** (2.284-2.928)	2.565*** (2.261-2.909)	2.427*** (2.136-2.759)	0.055(0.009)***
Life-course Class	3.266*** (2.516-4.240)	3.065*** (2.365-3.973)	2.931*** (2.251-3.815)	0.046(0.014)***
Never Married		1.359*** (1.174-1.572)	1.478*** (1.275-1.713)	-0.072(0.011)***
Living as if married		1.803*** (1.448-2.247)	1.865*** (1.494-2.328)	-0.027(0.009)***
Widowed		1.197 (0.889-1.613)	1.050 (0.772-1.428)	0.131(0.022)***
Divorced		1.456*** (1.222-1.736)	1.391*** (1.164-1.663)	0.045(0.010)***
Separated	-	1.655** (1.200-2.281)	1.629** (1.180-2.249)	0.014(0.012)
Black		0.596*** (0.506-0.703)	0.611*** (0.518-0.721)	-0.020(0.006)***
American Indian/Alaskan Native		0.635*** (0.539-0.750)	0.629*** (0.533-0.743)	0.013(0.006)*
Asian/ Hawaiian		0.984 (0.640-1.514)	0.899 (0.583-1.387)	-0.087(0.025)***
Hispanic		0.468*** (0.341-0.643)	0.487*** (0.355-0.669)	-0.031(0.008)***
Physical Health	-	-	0.979*** (0.974-0.985)	

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.10: Odds Ratios and Confidence Intervals for direct and indirect effects of Interpersonal Poly-victimization classes on **Eating Disorders** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	2.421*** (1.596-3.672)	2.481*** (1.646-3.740)	2.291*** (1.508-3.481)	0.075(0.024)**
Life-course Class	2.772* (1.052-7.306)	2.649* (0.991-7.081)	2.477 (0.932-6.579)	0.062(0.026)*
Never Married		1.748 (1.065-2.869)	1.963** (1.205-3.196)	-0.098(0.031)**
Living as if married		1.037 (0.498-2.161)	1.077 (0.518-2.236)	-0.036(0.016)*
Widowed		0.855 (0.272-2.689)	0.705 (0.219-2.269)	0.178(0.058)**
Divorced		1.273 (0.663-2.443)	1.181 (0.604-2.310)	0.061(0.022)**
Separated	-	1.346 (0.387-4.685)	1.302 (0.372-4.551)	0.019(0.017)
Black		1.322 (0.809-2.162)	1.382 (0.844-2.266)	-0.028(0.011)**
American Indian/Alaskan Native		0.991 (0.538-1.825)	0.988 (0.536-1.822)	0.018(0.008)
Asian/ Hawaiian		2.288 (0.777-6.735)	2.014 (0.682-5.946)	0.119(0.047)*
Hispanic		1.828 (0.798-4.190)	1.959 (0.860-4.462)	-0.042(0.016)**
Physical Health	-	-	0.972*** (0.955-0.989)	- -

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 6.11: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Personality Disorders** via Physical Health

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Physical Health (Sf12v2) B (SE)**
Childhood Class	4.750*** (4.258-5.297)	4.807*** (4.301-5.373)	4.601*** (4.113-5.148)	0.053(0.008)***
Life-course Class	6.964*** (5.547-8.743)	6.345*** (5.071-7.939)	6.150*** (4.894-7.729)	0.045(0.014)***
Never Married		2.110*** (1.852-2.404)	2.293*** (2.010-2.617)	-0.070(0.010)***
Living as if married		2.489*** (2.068-2.996)	2.577*** (2.136-3.110)	-0.026(0.009)**
Widowed		1.100 (0.803-1.506)	0.971 (0.701-1.345)	0.127(0.021)***
Divorced		2.184*** (1.857-2.569)	2.104*** (1.786-2.478)	0.044(0.009)***
Separated	-	2.370*** (1.783-3.150)	2.343*** (1.757-3.126)	0.014(0.012)
Black		0.771*** (0.671-0.885)	0.789*** (0.687-0.907)	-0.020(0.005)***
American Indian/Alaskan Native		0.844* (0.735-0.968)	0.838* (0.730-0.962)	0.013(0.005)*
Asian/ Hawaiian		1.433 (0.985-2.084)	1.318 (0.912-1.906)	0.085(0.025)***
Hispanic		0.507*** (0.385-0.668)	0.527*** (0.400-0.696)	-0.030(0.008)***
Physical Health	-	-	0.980*** (0.975-0.985)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

6.4 Discussion

This study investigated the mediating impact of self-reported physical health on the relationship between interpersonal poly-victimization and negative mental health outcomes. The results showed that self-reported physical health partially mediates the relationship between a childhood specific class of interpersonal poly-victimization and meeting the DSM-5 diagnostic criteria of nicotine use disorder, PTSD, drug use disorder, depressive disorders, anxiety disorder, eating disorders and personality disorders. This concurs with previous literature in relation to substance use disorders (Zschucke, Heinz & Ströhle, 2012), PTSD (Rosenbaum et al., 2015), depression and anxiety (Goodwin, Kroenke, Horen & Spitzer, 2003). A lack of evidence as regards physical wellbeing in relation to personality disorders means that further research is necessary to extrapolate these findings, in line with the recommendations in Taylor, Sallis and Needle (1985). It was not expected that self-reported physical wellbeing would mediate the relationship between interpersonal poly-victimization and eating disorders; these findings conflict with the literature outlined above which shows physical exercising or over-exercising is highly prevalent in patients with eating disorders.

The relationship between interpersonal poly-victimization and affective disorders is not mediated by self-perceived physical health state in the current study.

This is at odds with the literature previously outlined and is worthy of further exploration. In the current study, unipolar depressive disorders were assessed in a separate category labelled ‘depressive disorders’ which showed a partial mediation

effect when self-perceived physical wellbeing was introduced to the model; however, the category of 'affective disorders' in the current analysis included bipolar disorder, mania and hypomania. This suggests that affective disorders as categorised in the current study may be worthy of special consideration for male victims of childhood interpersonal poly-victimization. Further, the results of longitudinal studies have also been shown to differ. For example, Cooney et al. (2013) in a systematic review found that exercise and activity has no more impact on depression symptomology than medications or psychological based therapies. This is important given that the current study is based on cross-sectional data and was unable to examine the chronicity or temporal order of victimisation events and mental health difficulties.

Furthermore, when examining the life-course poly-victimization class, a partial mediation effect of self-perceived physical wellbeing was evident for those at elevated risk of meeting the DSM-5 diagnostic criteria of nicotine use disorder, PTSD, drug use disorder, depression, affective disorders, anxiety disorder, eating disorders and personality disorders. Thus, higher self-reported physical health mediates the risk of negative mental health outcomes for victims of life course poly-victimization however, this is in conflict with the results as previously discussed with regard to eating disorders. Of note, the life-course poly-victimized class showed the highest endorsement of childhood sexual abuse (CSA) and Caslini et al. (2016) found that CSA was not predictive of Anorexia Nervosa diagnosis when examined in isolation. While abuse in childhood is endorsed by a considerable portion of those presenting with eating disorders (Caslini et al., 2016), this has never been examined in relation to life-course poly-victimization in a male only sample. Cook et al. (2017) suggested that

eating disorders are one form of behavioural control found in young victims of complex trauma, and as previously noted, complex trauma relates only to experiences suffered in childhood and are not studied across the life-course.

The experience of exposure to interpersonal poly-victimization, compounded by a reduction in physical health which may or may not be causally linked, may impact physical functioning. As such, this may lead to a more sedentary lifestyle which might limit a person's ability to be active and indeed, may have an impact on a person's day to day life and functioning in many areas. Previous research has shown that when physical activity and functionality are impaired by critical or chronic illness, outcomes are impacted in a negative manner (McNelly et al., 2016). Phillips, Stampfer, Chan, Giovannucci and Kenfield (2015) in a population of 1,917 males who had been diagnosed with prostate cancer (non-metastatic) found that men who walked for a minimum of 90 minutes a week had better hormone and vitality scores. Further, the inability to pursue even mild levels of physical functioning can understandably, impact mental health outcomes (Paluska & Schwenk, 2000). Of further note, a reduction in physical functioning may also impact the factors that aid resilience and build resistance due to an inability to fully participate in an average level of activities within family and friend relationships. For example, social support is argued to be an effective instrument in both the reduction of risk and the development and maintenance of resilience. Berkman (1984) examined the impact of social support on physical health citing the Tecumseh Community Health Study (House, Strecher, Metzner & Robbins, 1986) which found that volunteering, spectator engagement, and marital status were all statistically significant predictors of better outcomes for

men. The relationship between interpersonal poly-victimization, negative mental health outcomes and social support will be examined in detail in chapter 6.

The relationship between traumatic experiences and a reduction in the ability to carry out routine activities has been theorised to contribute to the experience of fatigue and pain (Ablin et al., 2013). Exercise is known to be beneficial for physical and mental health (Sechrist, Walker & Pender, 1987); however, coping and dealing with daily physical and psychological pain may exclude many victims from engaging in, and experiencing the benefits of, physical activities. A recent body of work is bringing considerable attention to the benefits of physical activity and mental health outcomes. For example, Penedo and Dahn (2005) found that better physical health, psychological health and functioning outcomes were evident for people who engaged in some form of regular activity.

6.4.1 Limitations and Implications

The relationship between interpersonal poly-victimization and negative mental health outcomes is a complicated and multi-faceted one, as such the current study should be viewed in light of a number of limitations. Cross-sectional data precludes the ability to establish temporal order. It may be equally as likely that those with mental health difficulties do not engage in physical activities, as it is for those who have a physical health issue to have a pre-existing mental health complication.

Of note, MacKinnon (2013) states that, where large sample sizes are used, small effect sizes may present as significant while in small samples large effect sizes can

return non-significant results. In this analysis the effect sizes were minimal and should therefore be reviewed with caution. Further research is required to expose the full nature and implications of the impact of various measures of physical wellbeing on the relationship between interpersonal poly-victimization and negative mental health outcomes.

Further, no assessment was made for any previously existing pre-disposition for either a physical or mental health issue. That being said, the results demonstrate that physical health plays an important role in the relationship between interpersonal poly-victimization and negative mental health outcomes, with different levels being exposed. This research also shows that, being a victim of interpersonal poly-victimization can impact physical health, which in turn may impact psychological wellbeing and equally, being a victim of interpersonal poly-victimization impacts psychological health which could impact physical health and functioning.

6.4.2 Conclusion

The current results indicate that physical health mediates the relationship between profiles of interpersonal poly-victimization and psychological outcomes. It is well established that men do not disclose their experiences of interpersonal victimisation experiences, however, they are also less likely to report physical symptoms (Barsky, Peekna & Borus, 2001). While interpersonal poly-victimization in childhood, also known as child abuse or Adverse Childhood Experience (ACE), are known to be a risk factor for negative mental health outcomes (Shevlin, McElroy & Murphy, 2015). To date, no research exists that has examined the impact of these interpersonal poly-

victimization experiences when they occur during childhood and continue to occur across the life-course in males. This is of concern given that when a person suffers a victimisation experience they are at increased risk of further victimisation experiences, thus poly-victimization or re-victimisation. Indeed, when people suffer poly-victimization and re-victimisation they are at further risk of elevated symptomology of psychological disorders in a dose-response fashion. This expands the argument made in Chapter 5. Research needs to be mindful that single types or episodes of interpersonal victimisation increase the risk of further victimisation experiences and as such, this should be taken into account in all research with victims. Further researchers should consider diverting some attention to developing adequate interventions that are suitable for the male population, including a tool to aid health professionals and first responders to support trauma focused care that, rather than assessing "*what is wrong*" with a male patient if they do present for treatment, supports the option and training to also ask "*what has happened*". This would provide support and treatment options which can be tailored to meet the needs of the most vulnerable when identified and should include interventions to aid engagement in physical activities. Insufficient intervention strategies have been based on and developed specifically for the needs of men therefor further work, particularly longitudinal research is required to understand and address the specific needs of male survivors of interpersonal poly-victimization. Practical support should at least be two-fold for men: first, support for male victims should match that of other victims, including a consistent and focused public health campaign, to raise awareness of men's physical and psychological health issues and the interaction of both; and second, this should be complimented with physical support and resources

for those who find themselves in difficulty or distress. Governments across the developed world have sophisticated equality legislation which is not being met in the lack of provision of services and support for male victims and this needs urgently addressed.

Chapter 7:

Interpersonal Poly-victimization and negative Psychopathology: the mediator-moderator role of Social Support

7.1 Introduction

While many factors could be implicated in the relationship between interpersonal poly-victimization and mental health outcomes, one factor that is worthy of investigation is whether, and to what extent, social support, or the lack of, impacts that relationship. From an evolutionary perspective, humans are social creatures, evolving in small family and friend pockets over millennium and eventually populating the entire globe (Oppenheimer, 2003). These family and friend communities met the needs of the members socially, emotionally, physically and reproductively. This final empirical chapter will outline the literature on social support and will examine the impact of perceived Interpersonal Social Support (ISS) as a mediator and as a moderator of the relationship between interpersonal poly-victimization and psychopathology. A detailed explanation of mediation analysis is available in Chapter 6.

It is well accepted that stressful events have a negative impact on mental health (Yarcheski & Mahon, 1999). As seen in Chapter 5, the cumulative impact of stressful interpersonal poly-victimization experiences increases the negative outcomes for victims in a dose-response fashion. Although many factors may influence this relationship, social support has been implicated as a key factor in the relationship between victimisation experiences and negative mental health outcomes.

7.1.1 Social Support

Social support is multifaceted and sometimes difficult to conceptualise. It is closely related to the notion of loneliness and sense of worth and encompasses stress and coping theories alongside problem or emotion-based functionality (Shevlin, McElroy & Murphy, 2015; Barrera, 1986; Folkman & Lazarus, 1990). Early research detailed social support in the frame of social ties and relationships. For example, Myers, Lindenthal and Pepper (1975) operationalised the concept of social support by indices including marriage, club and church membership, friend and relative visits, outings and close friends. Williams, Ware and Donald (1981) operationalised social support with measures including engagement in religious activities and participating in group activities. Thus, an array of theoretical models has been postulated to explain different features of the phenomenon.

7.1.2 The development of Social Support in childhood

The nature of engagement in social relationships impacts the personal social ties formed over the life-course. In childhood, attachment theory exposes an evolutionary need for positive social behaviours; babies smile, follow their caregiver and depend on a secure attachment to their family (Bowlby, 1969; Ainsworth, 1989). These are relationships that the child returns to for comfort and support for a great many years through their early life if they are available. Indeed, when these opportunities are absent, the ability to engage in or develop social interactions have been shown to be stunted (Harlow & Harlow, 1965). Further, any negative

consequences may persist into adolescence and adulthood, with theorists postulating that these early foundations of security in the social and familial relationship formed, impacts later life choices. Indeed, Johnson, Browne and Hamilton-Giachritsis (2006) argued that a good standard of care in childhood is critical to establish positive functioning in the years beyond childhood.

In 2016 in America, 437,465 children were being cared for within the state care system, with 7% in non-kin institutional based care (Child Welfare Information Gateway, 2017). Children living in institutional care settings in particular have the greatest likelihood of having suffered the most horrendous trauma and victimisation experiences and, this environment limits the opportunity to build good social relationships with peers and carers, specifically given this group of children are most at risk of placement disruption (Epstein, Schlueter, Gracey, Chandrasekhar & Cull, 2015). This is the systemic movement between care facilities and schools which disrupts friendships, relationships and bonds formed with both carers and peers. There is often no option to grow and put down roots within the same community, no continuity in primary care givers and friendships, therefore social ties and bonds are lost (Pears, Kim, Buchanan & Fisher, 2015). Further, these children are known to be at greater risk of negative psychosocial outcomes, including a higher propensity to have engagement in the judicial system (McFarlane, 2017), and lower educational attainment (Merritt & Klein, 2015). A lack of social support for children is deemed to play be a key factor in stress-related disorders, psychological and physical disorders (cf. Cassel, 1974a, 1974b; Cobb 1976).

Ultimately, if people are not able to develop secure and consistent relationships, friendships and bonds within their community or family, these social support options will not be available, and cannot therefore be mobilised as resources of support in times of need. Chapter 4 established two typologies of poly-victimization, a childhood specific class and a life-course class, and both classes included profiles of victimisation experience in childhood. This is important given that the process and ability to form social relationships and ties that develop into a social support network that can be utilized begins, as shown here, in the early years.

7.1.3 Social Support as a pragmatic application

Social support can take many different forms including: emotional support, where a person is encouraged or nurtured; financial support to help meet bills or buy food; or advice such as information that may be useful to someone (Langford, Bowsher, Maloney & Lillis, 1997; Slevin et al., 1996; Taylor, 2011). It can also be provided by a variety of sources including family and friends, neighbours or work colleagues, and statutory or voluntary support agencies such as government or charity bodies (Uchino, 2004). Cassidy, McLaughlin and McDowel (2014) showed that social support mediated the outcomes for adult victims of bullying at work and it is generally believed that those who experience higher levels of social support will experience better mental and physical health outcomes (Berkman, Glass, Brissette & Seeman, 2000; Leach, 2014; Uchino, 2004).

Vaux (1988) states that concentrating on the social support offered by a singular entity, for example only an intimate partner, may be too restrictive to capture the intricacies of what social support means to someone in need. Indeed, social support may be better understood in terms of social networks which include both intimate relationships and integration into community networks. There may be a degree of fluidity in social networks as people change jobs, met new partners, make new friends, take up new activities or connect with extended family. Conversely, people can also drop out of the social network, perhaps if they move away or leave to go to other jobs, but within a person's social network there will be a core support network were people feel they can turn in times of need (Vaux, 1988).

7.1.4 Theories of Social Support

Much work has been conducted to understand how the theory of a core support networks sits within a greater social network, including assessing the size of the network, the composition of the network and reciprocity from the network members (Barrera, Sandler & Ramsay, 1981; Hirsch, 1981; Tolsdorf, 1976; Vaux & Harrison, 1985), all of which confirm the complexity of the concept and the difficulty in the operationalisation of social support.

Two main concepts have been proposed to elucidate the role of social support in the relationship between stressful events and health outcomes. Cohen and Wills (1985) claim that the cumulative impact of multiple stressors may increase the potential for

severe ailments to develop however, sufficient social support, concurrent or sequential to a stressful experience may inhibit and weaken the stress reactions to events thus, *'buffering'* or protecting from the impact of the stressor. Further, the '*direct effects'* of social support are claimed to be beneficial throughout the life-course, regardless as to whether a stressful event has occurred. However, it appears that the impact of social support on the relationship between stressful events and negative outcomes is not a simple one given the contradictory and mixed findings within the published literature.

For example, a review of the literature by Cobb (1976) found that social support was protective or had a buffering impact against a plethora of physical and psychological outcomes including arthritis and alcohol use and further, that social support could aid recovery. Moak and Agrawal (2009) found in their sample of 34,653 adults who completed the NESARC (wave II; Grant & Dawson, 2006), that support was evident for both the buffering hypothesis and the main effects hypothesis; low perceived ISS as measured by the short version of the ISEL-12 (Cohen et al., 1985), was associated with increased pervasiveness of negative mental health outcomes including major depressive disorder and general anxiety disorder.

However, Tremblay, Hébert and Piché (1999) examined coping strategies and social support as mediators in the relationship between childhood sexual abuse (CSA) and related mental health outcomes in a group of 50 children, aged 7- to 12-year olds. The results revealed that while social support has a direct effect on outcomes, the presence of social support did not ameliorate the impact of CSA on mental health

outcomes. Recent research by Turner, Shattuck, Finklehor and Hamby (2017) supported the findings or Tremblay et al. (1999). Examining data from 1,186 children from 10 to 17 years of age, this longitudinal study examined children who had experienced consistently high poly-victimization, a group who, over time endorsed decreasing poly-victimization experiences, and a further group whose poly-victimization experiences increased, compared with those who reported low/no victimisation experiences. Turner et al. (2017) found that high poly-victimization was associated with a reduction in available social supports such as parental and peer support. Indeed, they reported that social support did not mediate the relationship between those who report high levels of poly-victimization and the distress suffered. Much of the disparity in results may be due to the application of different theories and methodological issues in the different studies including: (1) the measurement of perceived versus the measurement of received social support; (2) the diversity of populations under investigation; and (3) the variety in variables considered or not considered as contributing to the measure of social support used. For example, Shevlin et al. (2015) used a measure of loneliness as a proximal measure for social support when investigating the impact of childhood physical and sexual abuse on six negative mental health diagnostic categories. However, loneliness may not capture the full extent of the lack of available social support and further, measures of psychological abuse in childhood were not included in the analysis which may skew results. This is important considering, as detailed in Chapter 4, these victimisation experiences do not happen in isolation and psychological abuse is a key component in the typology of poly-victimization in childhood (Burns et al., 2015). Indeed, where

one victimisation has been experienced, the risk of suffering further victimisation experiences increases (Finklehor et al., 2011).

7.1.5 Mechanisms in Social Support

Compounded further by this disjointed evidence is a lack of understanding as to how the mechanisms of social support operate in terms of the relationship between stressful experiences and mental health outcomes. One seminal paper examined adult mental health outcomes for those abused and neglected in childhood compared to a control group (n=696). Results showed social support had both a mediating and moderating impact on the relationship between victimization and adult psychopathology. Interestingly, it was also noted that those who had experienced childhood victimisation had reduced social support available to them as adults when compared to the control group (Sperry & Widom, 2013).

Being mindful of the hidden nature of many abuse and neglect experiences and the further propensity for males not to report these incidences (Brown, 2004), it has been proposed that social support operates disparately by gender. Vaux (1985) observed gender variations in the impact of social support on mental health outcomes for victims, noting that females typically have more available social support resources than men. Vaux concluded that this difference in social support resources may be in part, due to societal norms with respect to what is gender appropriate behaviour (see Chapter 1). Indeed, social support has been found to

buffer mental health outcomes in adult female survivors of childhood adversities but not in adult male survivors (Powers, Ressler & Bradley, 2009), Runtz and Schallow (1997) however, found no gender difference.

A lack of investigation into the impact of social support as a third variable in the relationship between life-course interpersonal poly-victimization and mental health specifically in male victims means it is not fully understood whether social support mediates and/or moderates the relationship between multiple interpersonal victimisation experiences and psychopathological outcomes for male victims. Further, it is not known if it impacts the relationship at all. While many researchers use mediation and moderation terms interchangeably when examining the impact of a third variable in a relationship, they are distinct theories which mean very different things.

7.1.6 Mediation

The basic premise of mediation is to explain how two variables are related through a third variable. According to Baron and Kenny (1986), a mediating variable functions as a mechanism that allows the predictor variable to exert influence on the outcome variable. Thus, in mediation analysis two pathways influence the outcome variable, the direct path from the predictor variable to the outcome variable, and the indirect path from the predictor variable to the outcome variable through the mediator

variable. Mediation is therefore a specific type of regression-based path analysis (as seen in Chapter 6).

7.1.7 Moderation

Moderation on the other hand is a specific type of ANOVA which, in itself is a specific regression technique, involving an interaction term (Jose, 2013). Three pathways are examined, the relationship between the predictor variable and the outcome variable, the relationship between the moderator variable and the outcome variable and the relationship between the product of the predictor and moderator variables, and the outcome variable as seen in Figure 7.2. Moderations analysis exposes when, or under what circumstances, the predictor variable can exert an effect on the outcome variable.

Exploring whether, and to what extent, social support plays a role in the victimisation/ mental health relationship in men, where profiles of poly-victimization are established, has important theoretical implications if we are to understand the lived experience of male victims of interpersonal poly-victimization. Further understanding when and under what circumstances social support can impact the relationship could help direct services to those most in need. To that end, the current study aims to 1) explore the distinction between, and outcome of social support as a mediator and a moderator in the relationship between interpersonal poly-victimization typologies in males as outlined in Chapter 3, and 2) understand under

what circumstances social support moderates the cumulative impact of interpersonal poly-victimization on mental health diagnostic category disorders as seen in Chapter 4.

7.2 Method

7.2.1 Sample

Participants were drawn from the National Epidemiological Survey on Alcohol and Related Conditions, Wave III (NESARC III; Grant et al., 2014). The NESARC III data collection was carried out from 2012 to 2013 by the NIAAA. Participants were American civilian non-institutionalised population, aged 18 years and older living in military group quarters and domestic households. Data were weighted to account for oversampling of Blacks, Hispanics, Asians and Pacific Islanders and other design characteristics. Only data from male participants was utilised in the Latent Class Analysis (see Chapter 3) and used in the current study (n=15,794). Comprehensive details of the methods used in the survey are available in chapter 2.

7.2.2 Measures

7.2.2.1 Demographics

A wide range of demographics are sampled in the NESARC III data. Categories were preserved for current marital status which was queried by one question, responses were coded as (1) never married, (2) living as if married, (3) widowed, (4) divorced,

(5) separated, with (6) married, retained as the reference class. Ethnicity/Race responses were coded as (1) Black, non-Hispanic, (2) American Indian, Alaska Native, non-Hispanic, (3) Asian, Native Hawaiian, Other Pacific Islander, non-Hispanic, (4) Hispanic, any race, (5) White, non-Hispanic (Caucasian), where White, non-Hispanic (Caucasian) is retained as the reference class. The current study utilizes one question to assess socioeconomic status, "*Did you receive food stamps during the last 12 months?*", a positive endorsement was considered an indication of low SES. Marital status was assessed in one question. Age was grouped in line with the responses recorded in the NESARC III data and were coded as (1) 18-29 years, (2) 30-39 years, (3) 40-49 years, (4) 50-59 years, (5) 60-69 years, (6) 70+.

7.2.2.2 Latent Classes

Three typologies of interpersonal poly-victimization were established by LCA in Chapter 4: a class of life-course poly-victimization consisting of 3.1% of the population; a class of childhood specific poly-victimization consisting of 20.9% of the respondents and a class of low or no risk of interpersonal poly-victimization who constituted 76% of the respondents. During the LCA, missing data was evaluated, with no additional cases being removed from the dataset during this analysis leaving 15,794 cases remaining for analysis (see Chapter 4).

7.2.2.3 Diagnostic Assessment

Psychopathology diagnosis is made in line with the criteria of Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM5), and is utilised in the NESARC III using the AUDADIS-5 diagnostic interview (see Chapter 3). Trained interviewers administered the AUDADIS-5, during data collection, which queries lifetime and past year self-reports on various mental health disorders including anxiety, depression and PTSD.

Data on negative mental health disorders identified as life-time were utilised in the current study. PTSD, tobacco use disorder and alcohol use disorder were individually reported within the data, while DSM-5 diagnostic categories were used to create a further six composite variables (see chapter 5).

7.2.2.4 Perceived Interpersonal Social Support

The NESARC III utilises the ISEL-12 (Cohen & Willis, 1985) as a measure of perceived ISS. The ISEL-12 is a short version of the full 40-item ISEL. The ISEL-12 offers participants a list with 12 statements that are rated on a four-point scale from (1): definitely false, to (2): definitely true (see table 7.1). These were scored, and a sum total gives an indication of the level of perceived resources of ISS that are available to the respondent on a scale of 0 to 48, with a lower score, closer to zero showing lower perceived ISS and a score closer to 48 representing a higher level of perceived ISS (see Chapter 3).

Table 7.1: the 12 items that are included in the assessment of the ISEL-12

Q1.	If I wanted to go on a trip for a day (e.g., to the mountains, beach, or country), I would have a hard time finding someone to go with me.
Q2.	I feel that there is no one I can share my most private worries and fears with.
Q3.	If I were sick, I could easily find someone to help me with my daily chores.
Q4.	There is someone I can turn to for advice about handling problems with my family.
Q5.	If I decide one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.
Q6.	When I need suggestions on how to deal with a personal problem, I know someone I can turn to.
Q7.	I don't often get invited to do things with others.
Q8.	If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment (the plants, pets, garden, etc.).
Q9.	If I wanted to have lunch with someone, I could easily find someone to join me.
Q10.	If I was stranded 10 miles from home, there is someone I could call who could come and get me.
Q11.	If a family crisis arose, it would be difficult to find someone who could give me good advice about how to handle it.
Q12.	If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.

The ISEL-12 returned a mean overall score of 41.44 and in respect of the moderation analysis, one standard deviation above and below the mean was considered representative. A full outline of the development of the ISEL-12 is reported in the methodology chapter (Chapter 2).

7.2.2.5 .Analysis

7.2.2.5.1 Mediation Analysis

Perceived ISS as measured by the ISEL-12 is examined as the intervening or mediator (M) variable in the current analysis, while the *a* path is the effect of X on the mediating variable and the *b* path is the effect of the mediator variable on the outcome variable, the indirect effect is the difference between c and *c prime* (*c* & *c'*; see Figure 1). The proposed indirect path in this analysis, the effect of the predictor variable on outcome while controlling for the mediator variable, is expected to lower the strength of the relationship between predictor and outcome when the mediator is introduced into the model (cf. Jose, 2013). For a full explanation of mediation analysis please refer to Chapter 6.

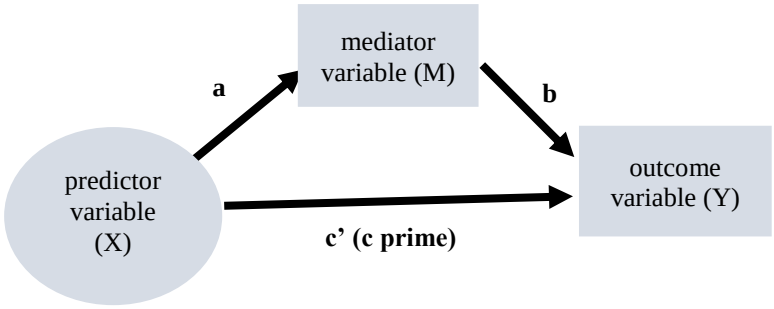


Figure 7.1: Indirect path from X to Y via M

Following the recommended steps, as outlined in Baron and Kenny (1986, see Chapter 6), a three-step regression analysis where the final step exposes the effect of class of interpersonal poly-victimization on psychopathology while controlling for perceived ISS. In this analysis the interpersonal poly-victimization class established in

chapter 4 was dummy coded with the reference class being the class labelled as normative. All analysis was carried out in SPSS V23 and MPlus V7.4 (Muthén & Muthén, 1998-2016) using the robust maximum likelihood (MLR) estimator and Monte Carlo integration. Preacher and Selig (2012) recommend using Monte Carlo integration when bootstrapping is not appropriate as in this model due to the presence of the weight variable.

7.2.2.5.2 Moderation Analysis

There are two basic steps that must be carried out before moderation analysis can be conducted. Firstly, all categorical predictors need to be dummy coded and this was conducted in MPlus 7.4 so that all categorical variables are coded from '0', where the highest numerical category acts as the reference class. Next the interaction term must be defined. In this study, the focus is on the interaction between class of interpersonal poly-victimization and perceived ISS as measured by the ISEL-12, this interaction term was labelled as XW and was created in MPlus 7.4 during the analysis (see figure 2). The current analysis utilises the 'pick a point' approach (Rogosa, 1980; Bauer & Curran, 2005), where the mean score of the ISEL-12 measure and one standard deviation above and below the mean ($\pm$1sd) are utilised to assess moderation effects. Results show the impact of the interaction term on the relationship between class of interpersonal poly-victimization and psychopathological outcome. Of note, the independent variable of latent class in this analysis is categorical therefor it is not necessary to mean centre this variable (Hayes,

2018; Jose, 2013; Kromrey & Foster-Johnson, 1998). Results of the zero order correlations are examined.

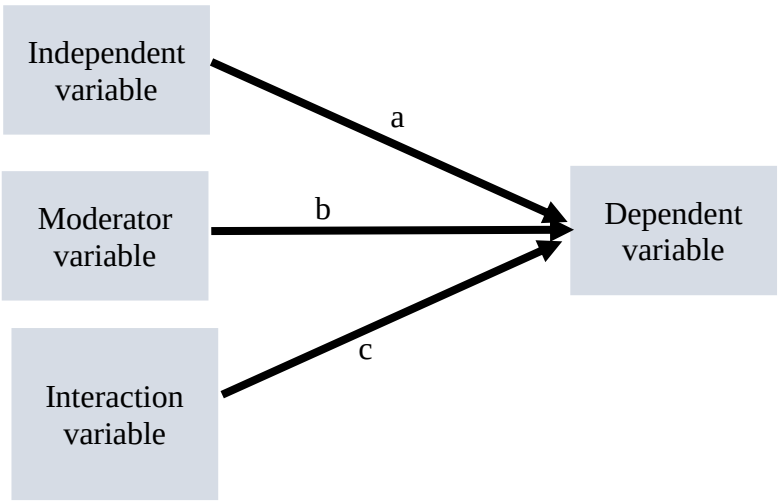


Figure 7.2: A pictographic representation of the relationships examined in a moderation analysis.
The final mediation moderation model is shown in Figure 7.3.

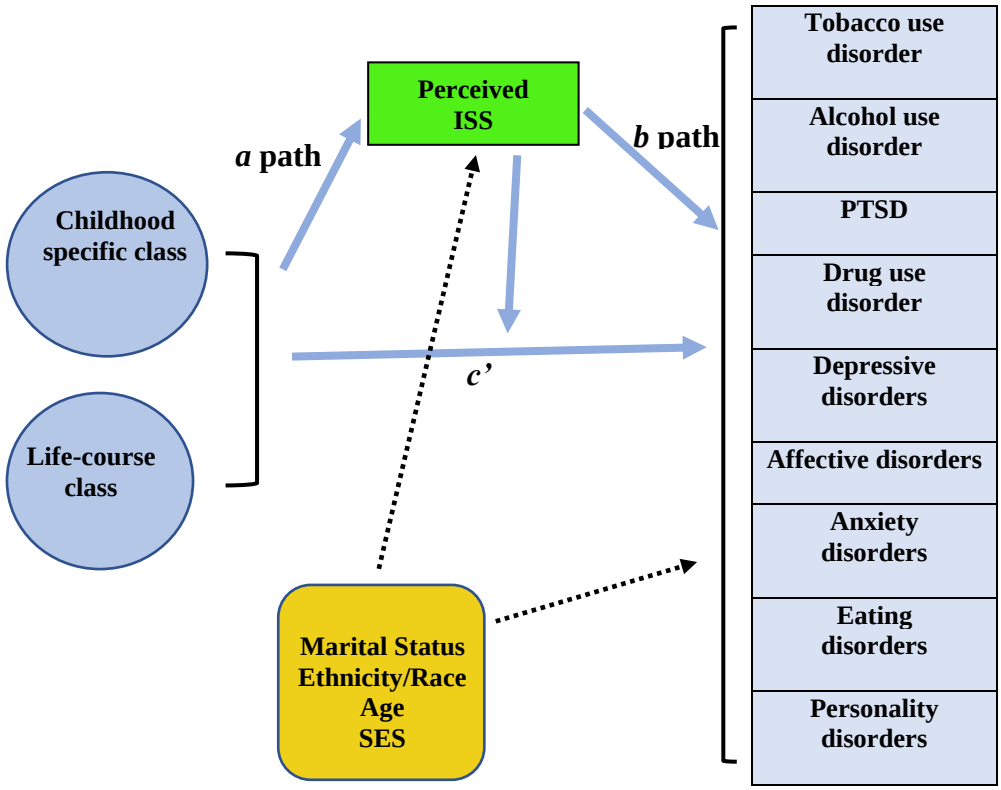


Figure 7.3: Full mediation moderation model for class of poly-victimization, psychopathology and perceived ISS.

7.3 Results

7.3.1 Perceived ISS and Class Membership

The ISEL-12 for the population showed an overall mean score of 41.44 with a standard deviation of 6.19. For the moderation analysis this means that one standard deviation below the mean = 35.25 and is used as an indication of low social support for this population. High social support in the moderation analysis is assessed as the population mean plus one standard deviation which resulted in a score of 47.63.

7.3.2 Mediation Analysis: Perceived Interpersonal Social Support as a mediator of the relationship between Interpersonal Poly-victimization Class Membership and Psychopathology.

In the mediation analysis, three models were specified and tested. Model fit indices were examined to establish the best fitting model for the data. The Akaike Information Criterion (AIC: Akaike, 1987), the Bayesian Information Criterion (BIC: Schwarz, 1978) and the sample size adjusted Bayesian Information Criterion (SSABIC: Sclove, 1987) fit indices were consulted to establish the best model fit with lower scores indicating the better model, results are presented in Table 7.2.

Chi-square tests and log-likelihood values attained from the MLR estimation were also consulted for model fit, where model 3, the final model showing substantial pre-eminence.

Table 7.2: Fit Indices of the three mediation models

Model	Log-likelihood	Free parameters	AIC	BIC	SSABIC
1	-100448.302	29	200954.604	201176.959	201084.799
2	-98143.566	164	196615.132	197872.283	197351.403
3	-97172.634	190	194725.268	196182.071	195578.265

Note: AIC = Akaike Information Criterion; BIC = Bayesian Information Criterion; SSABIC = sample size adjusted Bayesian Information Criterion.

Mediation Model 1:

Direct effects between the class of interpersonal poly-victimization classes and the nine psychopathologies were significant, in line with results as detailed in Chapter 5. For those classified into the childhood specific interpersonal poly-victimization class, increased odds on all psychopathologies was evident, including over four times the risk of PTSD and over three times the risk of depression and anxiety. The life-course interpersonal poly-victimization class showed elevated risk in a dose response fashion with increased odds of endorsement of PTSD at almost six time that of the normative class, three and a half times the risk of depression and over three times the risk of anxiety. Results can be seen in Tables 7.3 to 7.11.

Mediation Model 2:

Age group, past year socio-economic status, marital status and Ethnicity/Race were included as covariates in Model 2. The direct effects of interpersonal poly-victimization class on psychopathology remained significant, with the exception of the life-course interpersonal poly-victimization class relationship to the diagnostic criteria of an eating disorder. Significant improvement was evident in model fit with

the incorporation of the covariates into the model (*Δχ2 =* 3589.931*, df =* 135*, p<* .001*).* Past year SES was predictive of increased odds of endorsing all psychopathologies. In most cases age is predictive of risk for psychopathology, in particular, Alcohol Use disorder peaks in the 18 to 29-year-old, and 30 to 39-year-old groups at approximately three and a half times more likely than the reference group of over 70 years old, risk then gradually reduces as age increases over the life span. This is similar to the results seen for the risk of Drug Use Disorder, elevated to over 16 times the risk in the 30 to 39-year-old age group and reducing as age increases, and similar to results for Depression, almost three times as likely in the 30 to 39-year-old group and reducing as age increases. Further, risk of PTSD endorsement is also higher across all age groups when compared to the reference group.

Being married is, in general, significantly protective of psychopathology other than eating disorders, while being white (Caucasian) in general, shows elevated risk for all psychopathological diagnosis.

Mediation Model 3:

Perceived ISS was introduced as a mediator in the final model, Model 3. The final mediation model (*a'* path) showed significant improvement from the Chi square test (*Δχ2 =* 1388.511*, df =* 26*, p<* .001*)*.

When perceived ISS was included, significant pathways between the latent classes of interpersonal poly-victimization and psychopathological outcomes all remained

significant however odds reduced, with the exception of the life-course poly-victimization class and eating disorders, indicating partial mediation has occurred in all cases except one. A range of indirect effects were exposed for interpersonal poly-victimization classes and covariates including age, past year SES, Marital Status and Ethnicity/Race, in the negative mental health outcomes via Perceived ISS (see tables 7.3 to 7.11).

Of note, being American Indian/Alaskan is not predictive of a diagnosis of PTSD nor influenced by the inclusion of the perceived ISS mediator. The introduction of the covariates and the perceived ISS mediator into the model assessing the relationship between life-course interpersonal poly-victimization class and the risk of psychopathology, in respect of eating disorders became non-significant results suggesting that perceived ISS has limited direct or indirect mediational impact on this relationship.

Table 7.3: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Nicotine Use Disorder** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	2.967*** (2.379-3.700)	2.623*** (2.090-3.293)	2.604*** (2.075-3.286)	0.008(0.005)
Childhood Class (C2)	2.136*** (1.945-2.346)	2.026*** (1.836-2.235)	2.004*** (1.815-2.212)	0.011(0.005)*
Age **(reference = age 70+ years)**				
18-29 years	-	1.266** (1.044-1.537)	1.305** (1.072-1.588)	-0.029(0.014)*
30-39 years	-	1.730*** (1.441-2.077)	1.766*** (1.468-2.125)	--0.020(0.010)*
40-49 years	-	1.512*** (1.259-1.816)	1.535*** (1.276-1.846)	-0.014(0.007)*
50-59 years	-	1.538*** 1.283-1.844)	1.552*** (1.293-1.863)	-0.009(0.004)
60-69 years	-	1.492*** (1.235-1.803)	1.498*** (1.239-1.810)	-0.003(0.002)
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	2.575*** (2.273-2.917)	2.538*** (2.237-2.878)	0.015(0.007)*
Marital Status **(reference = married)**				
Never Married	-	1.335*** (1.185-1.505)	1.305*** (1.156-1.473)	0.022(0.011)*
Living as if married	-	1.775*** (1.495-2.107)	1.760*** (1.482-2.091)	0.008(0.004)
Widowed	-	1.102 (0.863-1.408)	1.084 (0.849-1.383)	0.017(0.009)
Divorced	-	1.956*** (1.717-20229)	1.924*** (1.688-2.194)	0.017(0.008)*
Separated	-	2.100*** (1.674-2.634)	2.066*** (1.646-2.594)	0.016(0.008)*
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian)**				
Black	-	0.337*** (0.298-0.382)	0.335*** (0.296-0.379)	0.008(0.004)*
American Indian/Alaskan	-	0.552*** (0.492-0.618)	0.552*** (0.492-0.618)	0.000(0.001)
Asian/ Hawaiian	-	0.938 (0.669-1.315)	0.937 (0.669-1.312)	0.002(0.004)
Hispanic	-	0.476*** (0.384-0.590)	0.471*** (0.380-0.584)	0.012(0.006)*
Perceived ISS	-	-	0.992* (0.985-1.000)	- -

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.4: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Alcohol Use Disorder** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	2.656*** (2.130-3.312)	2.388*** (1.911-2.985)	2.364*** (1.892-2.955)	0.001(0.005)*
Childhood Class (C2)	1.883*** (1.717-2.065)	1.901*** (1.725-2.094)	1.874*** (1.700-2.066)	0.015(0.005)**
Age **(reference = age 70+ years)**				
18-29 years	-	3.444*** (2.813-4.217)	3.583*** (2.920-4.397)	-0.038(0.014)**
30-39 years	-	3.502*** (2.883-4.255)	3.600*** (2.958-4.380)	-0.027(0.010)**
40-49 years	-	2.908*** (2.319-3.537)	2.965*** (2.436-3.609)	-0.019(0.007)
50-59 years	-	2.419*** (2.054-2.940)	2.449*** (2.014-2.977)	-0.011(0.005)*
60-69 years	-	2.004*** (1.635-2.457)	2.013*** (1.642-2.468)	-0.004(0.003)
SES	-	1.403*** (1.238-1.589)	1.375*** (1.212-1.560)	0.020(0.007)**
Marital Status **(reference = married)**				
Never Married	-	1.338*** (1.196-1.497)	1.299*** (1.159-1.456)	0.030(0.011)**
Living as if married	-	1.727*** (1.466-2.034)	1.709*** (1.451-2.013)	0.011(0.004)*
Widowed	-	1.024 (0.790-1.328)	1.001 (0.773-1.296)	0.023(0.009)*
Divorced	-	1.723*** (1.515-1.967)	1.690*** (1.481-1.928)	0.022(0.008)**
Separated	-	1.772*** (1.405-2.235)	1.735*** (1.376-2.189)	0.021(0.008)**
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian)**				
Black	-	0.492*** (0.442-0.548)	0.487*** (0.437-0.542)	0.011(0.004)**
American Indian/Alaskan	-	0.460*** (0.412-0.514)	0.460*** (0.412-0.514)	0.000(0.001)
Asian/ Hawaiian	-	0.974 (0.700-1.355)	0.972 (0.698-1.353)	0.002(0.005)
Hispanic	-	0.340*** (0.274-0.421)	0.335*** (0.270-0.415)	0.017(0.006)**
Perceived ISS	-	-	0.990** (0.983-0.997)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.5: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **PTSD** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	5.990*** (4.091-8.777)	5.154*** (3.494-7.602)	4.908*** (3.324-7.247)	0.043(0.016)**
Childhood Class (C2)	4.561*** (3.746-5.554)	4.171*** (3.418-5.090)	3.924*** (3.203-4.808)	0.058(0.012)***
Age **(reference = age 70+ years)**				
18-29 years	-	1.915* (1.128-3.252)	2.280** (1.338-3.884)	-0.152(0.031)***
30-39 years	-	2.019** (1.207-3.375)	2.300** (1.366-3.872)	-0.107(0.022)***
40-49 years	-	2.153** (1.306-3.550)	2.341*** (1.416-3.873)	-0.076(0.017)***
50-59 years	-	1.936* (1.163-3.223)	2.026*** (1.213-3.383))	-0.046(0.013)***
60-69 years	-	1.858* (1.107-3.119)	1.900** (1.130-3.197)	-0.017(0.010))
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	1.709*** (1.355-2.157)	1.551*** (1.227-1.961)	0.080(0.017)***
Marital Status **(reference = married)**				
Never Married	-	1.514** (1.158-1.980)	1.319* (1.003-1.735)	0.117(0.023)***
Living as if married	-	1.869*** (1.329-2.628)	1.814*** (1.294-2.544)	0.043(0.012)***
Widowed	-	3.325*** (1.890-5.851)	3.070*** (1.726-5.462)	0.090(0.023)***
Divorced	-	1.871*** (1.395-2.508)	1.709*** (1.273-2.295)	0.089(0.019)***
Separated	-	1.884** (1.202-2.953)	1.742* (1.107-2.739)	0.084(0.021)***
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian)**				
Black	-	1.015 (0.794-1.297)	0.975 (0.762-1.247)	0.042(0.010)***
American Indian/Alaskan	-	0.990 (0.770-1.272)	0.998 (0.777-1.282)	0.001(0.006)
Asian/ Hawaiian	-	1.980* (1.082-3.625)	1.967* (1.077-3.592)	0.008(0.021)
Hispanic	-	0.343** (0.165-0.716)	0.327** (0.157-0.683)	0.066(0.016)***
Perceived ISS	-	-	0.961*** (0.946-0.975)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.6: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Drug Use Disorder** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	3.852*** (3.003-4.941)	3.182*** (2.463-4.110)	3.115*** (2.413-4.022)	0.020(0.008)*
Childhood Class (C2)	2.731*** (2.413-3.090)	2.705*** (2.376-3.081)	2.634*** (2.309-3.004)	0.026(0.007)***
Age **(reference = age 70+ years)**				
18-29 years	-	15.346*** (8.360-28.170)	16.565*** (8.994-30.512)	-0.069(0.019)***
30-39 years	-	16.208*** (8.868-29.626)	15.127*** (9.344-31.393)	-0.049(0.014)***
40-49 years	-	12.728*** (6.969-23.245)	13.207*** (7.215-27.176)	-0.034(0.010)***
50-59 years	-	14.122*** (7.736-25.782)	14.432*** (7.892-26.394)	-0.021(0.007)**
60-69 years	-	7.310*** (3.946-13.542)	7.363*** (3.970-13.658)	-0.008(0.005)
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	2.065*** (1.774-2.402)	1.984*** (1.702-2.313)	0.036(0.010)***
Marital Status **(reference = married)**				
Never Married	-	2.083*** (1.767-2.457)	1.970*** (1.669-2.327)	0.053(0.014)***
Living as if married	-	2.496*** (1.997-3.120)	2.460*** (1.969-3.073)	0.020(0.007)**
Widowed	-	1.181 (0.708-1.972)	1.138 (0.680-1.902)	0.041(0.013)***
Divorced	-	1.973*** (1.636-2.380)	1.903*** (1.575-2.299)	0.040(0.011)***
Separated	-	2.487*** (1.831-3.378)	2.402*** (1.771-3.258)	0.038(0.012)***
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian)**				
Black	-	0.471*** (0.397-0.558)	0.462*** (0.389-0.548)	0.019(0.006)***
American Indian/Alaskan	-	0.636*** (0.545-0.743)	0.637*** (0.546-0.744)	0.000(0.003)
Asian/ Hawaiian	-	1.122 (0.743-1.695)	1.115 (0.737-1.685)	0.004(0.009)
Hispanic	-	0.393*** (0.275-0.562)	0.385*** (0.269-0.550)	0.030(0.009)***
Perceived ISS	-	-	0.992* (0.985-1.000)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.7: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Depressive Disorders** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	3.526*** (2.787-4.460)	3.123*** (2.457-3.971)	3.021*** (2.367-3.855)	0.041(0.014)**
Childhood Class (C2)	2.651*** (2.381-2.951)	2.595*** (2.324-2.898)	2.469*** (2.208-2.761)	0.055(0.008)***
Age **(reference = age 70+ years)**				
18-29 years	-	2.001*** (1.521-2.634)	2.357*** (1.782-3.118)	-0.143(0.018)***
30-39 years	-	2.926*** (2.254-3.824)	3.301*** (2.524-4.316)	0.101(0.014)***
40-49 years	-	2.627*** (2.025-3.408)	2.850*** (2.189-3.710)	-0.071(0.012)***
50-59 years	-	2.580*** (1.990-3.345)	2.714*** (2.087-3.530)	-0.043(0.010)***
60-69 years	-	2.150*** (1.647-2.805)	2.196*** (1.678-2.873)	-0.016(0.009)
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	1.491*** (1.293-1.719)	1.375*** (1.191-1.587)	0.075(0.011)***
Marital Status **(reference = married)**				
Never Married	-	1.778*** (1.543-2.049)	1.575*** (1.364-1.823)	0.110(0.014)***
Living as if married	-	1.881*** (1.538-2.301)	1.820*** (1.488-2.226)	0.041(0.009)***
Widowed	-	2.606*** (1.950-3.483)	2.407*** (1.780-3.254)	0.085(0.016)***
Divorced	-	1.929*** 1.652-2.252)	1.781*** (1.525-2.081)	0.084(0.012)***
Separated	-	1.847*** (1.404-2.429)	1.714*** (1.304-2.252)	0.079(0.015)***
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian)**				
Black	-	0.590*** (0.514-0.677)	0.564*** (0.491-0.648)	0.040(0.007)***
American Indian/Alaskan	-	0.469*** (0.406-0.542)	0.468*** (0.405-0.540)	0.001(0.005)
Asian/ Hawaiian	-	0.877 (0.599-1.283)	0.865 (0.586-1.277)	0.008(0.019)
Hispanic	-	0.580*** (0.454-0.741)	0.548*** (0.428-0.701)	0.062(0.012)***
Perceived ISS	-	-	0.963*** (0.955-0.971)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.8: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Affective Disorders** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	4.147*** (2.735-6.289)	3.587*** 2.326-5.531)	3.466*** (2.240-5.362)	0.028(0.014)*
Childhood Class (C2	2.878*** (2.302-3.6)	2.787*** (2.221-3.496)	2.677*** (2.123-3.374)	0.038(0.014)**
Age **(reference = age 70+ years)**				
18-29 years	-	4.896*** (2.140-11.201)	5.453*** (2.360-12.600)	--0.100(0.037)**
30-39 years	-	4.387*** (1.938-9.930)	4.756*** (2.078-10.888)	-0.070(0.026)**
40-49 years	-	4.132*** (1.839-9.281)	4.355*** (1.928-9.839)	-0.050(0.019)**
50-59 years	-	2.855*** (1.254-6.500)	2.932* (1.284-6.695)	-0.030(0.012)*
60-69 years	-	2.143 (0.880-5.219)	2.165 (0.887-5.282)	-0.011(0.007)
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	1.684*** (1.301-2.180)	1.580*** (1.213-2.059)	0.052(0.019)**
Marital Status **(reference = married)**				
Never Married	-	1.422* (1.041-1.945)	1.312 (0.954-1.804)	0.077(0.028)**
Living as if married	-	1.790** (1.206-2.655)	1.755** (1.181-2.6.8)	0.028(0.012)*
Widowed	-	1.719 (0.200-2.589)	0.682 (0.190-2.440)	0.059(0.023)*
Divorced	-	1.794** (1.244-2.588)	1.697** (1.172-2.457)	0.058(0.022)**
Separated	-	2.355*** (1.401-3.960)	2.251** (1.333-3.801)	0.055(0.022)*
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian')**				
Black	-	0.829 (0.626-1.097)	0.806 (0.608-1.069)	0.028(0.011)**
American Indian/Alaskan Native	-	0.727* (0.543-0.975)	0.730* (0.545-0.978)	0.001(0.004)
Asian/ Hawaiian	-	0.887 (0.418-1.881)	0.874 (0.412-1.852)	0.005(0.014)
Hispanic	-	0.701 (0.421-1.166)	0.680 (0.409-1.132)	0.043(0.017)**
Perceived ISS	-	-	0.974** (0.956-0.992)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.9: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Anxiety Disorder** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	3.266*** (2.516-4.240)	2.928*** (2.246-3.818)	2.789*** (2.127-3.657)	0.053(0.018)**
Childhood Class (C2)	2.586*** (2.284-2.928)	2.456*** (2.165-2.786)	2.294*** (2.019-2.607)	0.071(0.010)***
Age **(reference = age 70+ years)**				
18-29 years	-	1.200 (0.904-1.594)	1.482** (1.110-1.978)	-0.186(0.022)***
30-39 years	-	1.441** (1.100-1.886)	1.671*** (1.271-2.196)	-0.131(0.017)***
40-49 years	-	1.446** (1.112-1.881)	1.597*** (1.224-2.084)	-0.093(0.014)***
50-59 years	-	1.609*** (1.238-2.091)	1.708*** (1.311-2.227)	-0.056(0.012)***
60-69 years	-	1.418* (1.081-1.861)	1.449*** (1.102-1.907)	-0.021(0.012)
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	1.717*** (1.464-2.013)	1.542*** (1.312-1.812)	0.098(0.013)***
Marital Status **(reference = married)**				
Never Married	-	1.391*** (1.176-1.644)	1.177 (0.992-1.395)	0.144(0.016)***
Living as if married	-	1.685*** 1.335-2.126)	1.613*** (1.278-2.035)	0.053(0.012)***
Widowed	-	1.373* (1.002-1.880)	1.226 (0.890-1.689)	0.110(0.020)***
Divorced	-	1.337*** (1.118-1.599)	1.192 (0.995-1.428)	0.109(0.014)***
Separated	-	1.484* (1.077-2.046)	1.342 (0.969-1.858)	0.102(0.019)***
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian')**				
Black	-	0.583*** (0.493-0.689)	0.549*** (0.463-0.650)	0.051(0.009)***
American Indian/Alaskan Native	-	0.588*** (0.496-0.696)	0.587*** 0.496-0.696)	0.001(0.007)
Asian/ Hawaiian	-	0.896 (0.581-1.380)	0.876 (0.569-1.349)	0.010(0.025)
Hispanic	-	0.472*** (0.343-6.649)	0.435*** (0.316-0.598)	0.081(0.014)***
Perceived ISS	-	-	0.952*** (0.943-0.961)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.10: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Eating Disorders** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	2.772* (1.052-7.306)	2.576 0.949-6.992)	2.536 (0.934-6.888)	0.014(0.015)
Childhood Class (C2)	2.421*** (1.596-3.692)	2.426*** (1.600-3.679)	2.377*** (1.559-3.624)	0.019(0.020)
Age **(reference = age 70+ years)**				
18-29 years	-	2.500 (0.021-7.608)	2.652 (0.862-8.157)	-0.051(0.032)
30-39 years	-	1.987 (0.693-5.702)	2.072 (0.719-5.972)	-0.036(0.036)
40-49 years	-	3.350* (1.178-9.532)	3.443* (1.206-9.833)	-0.025(0.026)
50-59 years	-	3.051* (1.084-8.586)	3.097* (1.098-8.739)	-0.015(0.016)
60-69 years	-	2.351 (0.753-7.342)	2.370 (0.759-7.402)	-0.006(0.007)
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	1.098 (0.662-1.821)	1.062 (0.634-1.779)	0.027(0.027)
Marital Status **(reference = married)**				
Never Married	-	1.728 (0.986-3.030)	1.653 (0.936-2.918)	0.039(0.040)
Living as if married	-	1.010 (0.478-2.132)	0.998 (0.472-2.108)	0.014(0.015)
Widowed	-	1.247 (0.391-3.973)	1.214 (0.382-3.863)	0.030(0.031)
Divorced	-	1.189 (0.618-2.286)	1.156 (0.600-2.228)	0.030(0.030)
Separated	-	1.224 (0.355-4.223)	1.191 (0.341-4.157)	0.028(0.029)
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian')**				
Black	-	1.314 (0.806-2.143)	1.293 (0.799-2.105)	0.014(0.014)
American Indian/Alaskan Native	-	0.960 (0.520-1.770)	0.961 (0.521-1.772)	0.000(0.002)
Asian/ Hawaiian	-	2.204 (0.741-6.558)	2.196 (0.739-6.525)	0.003(0.007)
Hispanic	-	1.809 (0.796-4.107)	1.778 (0.601-4.058)	0.022(0.023)
Perceived ISS	-	-	0.987 (0.961-1.013)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.11: Odds Ratios and Confidence Intervals for direct and indirect effects of interpersonal poly-victimization classes on **Personality Disorders** via Perceived Interpersonal Social Support

	Direct effects			**Indirect effects**
Variable	**Model 1 OR (95%CI)**	**Model 2 OR (95%CI)**	**Model 3 OR (95%CI)**	**Perceived ISS (ISEL-12) B (SE)**
Class Membership **(reference = normative class)**				
Life-course Class (C1)	6.964*** (5.547-8.743)	6.309*** (5.016-7.936)	6.155*** (4.875-7.771)	0.056(0.019)**
Childhood Class (C2)	4.750*** (4.258-5.297)	4.744*** (4.239-5.310)	4.491*** (4.010-5.036)	0.076(0.009)***
Age **(reference = age 70+ years)**				
18-29 years	-	1.597*** (1.220-2.089)	2.007*** (1.527-2.640)	-0.199(0.021)***
30-39 years	-	1.653*** (1.270-2.151)	1.944*** (1.488-2.540)	-0.140(0.016)***
40-49 years	-	1.414** (1.090-1.835)	1.579*** (1.212-2.057)	-0.099(0.014)***
50-59 years	-	1.256 (0.970-1.628)	1.339* (1.030-1.740)	-0.060(0.013)***
60-69 years	-	1.054 (0.802-1.387)	1.081 (0.820-1.425)	-0.022(0.012)
Socio-Economic Status **(reference = not in receipt of government aid)**				
SES	-	2.105*** (1.829-2.423)	1.905*** (1.650-2.201)	0.104(0.013)***
Marital Status **(reference = married)**				
Never Married	-	1.711*** (1.472-1.989)	1.453*** (1.248-1.693)	0.154(0.016)***
Living as if married	-	1.936*** (1.588-2.362)	1.848*** (1.513-2.258)	0.057(0.012)***
Widowed	-	1.287 (0.919-1.803)	1.144 (0.816-1.604)	0.118(0.021)***
Divorced	-	2.054*** (1.739-2.427)	1.840*** (1.554-2.179)	0.116(0.014)***
Separated	-	2.048*** (1.546-2.713)	1.850*** (1.397-2.449)	0.110(0.019)***
Race/Ethnicity **(reference = White, non-Hispanic 'Caucasian')**				
Black	-	0.708*** (0.615-0.815)	0.666*** (0.577-0.768)	0.055(0.009)***
American Indian/Alaskan Native	-	0.764*** (0.665-0.878)	0.763*** (0.664-0.878)	0.001(0.007)
Asian/ Hawaiian	-	1.298 (0.887-1.898)	1.281 (0.869-1.890)	0.011(0.027)
Hispanic	-	0.501*** (0.380-0.661)	0.463*** (0.351-0.611)	0.086(0.015)***
Perceived ISS	-	-	0.949*** (0.940-0.957)	-

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

7.3.3 Moderation Analysis: Perceived Interpersonal Social Support as a moderator of the relationship between Interpersonal Poly-victimization Class Membership and Psychopathology.

Latent class of interpersonal poly-victimization, as a categorical variable was dummy coded in MPlus 7.4 as part of the analytic strategy. The interaction term, the product of the latent class and the ISEL-12 was defined and coded as XW.

Zero order correlations were examined and are reported in table 7.12. Zero order correlations should range from -1 to +1 and this concurs with the results of the current study. Results from the impact of the interaction term on the relationship between class of interpersonal poly-victimization and psychopathological outcome are reported in tables 7.13 and 7.14. In the current analysis, a moderation effect was evident for the interaction term of childhood interpersonal poly-victimization*ISEL-12 for Drug Use Disorder (β = 0.031, *p*= .001), Depressive disorders (β = 0.017, *p*< .05) and Personality disorders (β = 0.019, *p*< .05).

Table 7.12: Zero Order Correlations

	Perceived ISS	Life-course Class	Childhood Class
Perceived ISS			
C1	-0.029		
C2	-0.109		
NUD	-0.060	0.088	0.160
AUD	-0.035	0.080	0.134
PTSD	-0.176	0.120	0.282
DUD	-0.062	0.101	0.192
DEP	0.145	0.096	0.199
AFF	-0.096	0.102	0.192
ANX	-0.176	0.089	0.192
EAT	-0.080	0.072	0.177
PER	-0.195	0.142	0.307

Table 7.13: Moderation analysis results for latent class of life-course poly-victimization.

	Life-course Poly-victimization F (β)	Perceived ISS F (β)	Interaction term (Life-course class x Perceived ISS) F (β)
NUD	2.718 (1.808)**	-3.153 (-0.011)**	-1.391 (-0.022)
AUD	2.704 (1.980)**	-1.737 (-0.006)	-1.610 (-1.610)
PTSD	-0.790 (-0.876)	-7.208 (-0.055)***	1.808 (0.049)
DUD	1.286 (0.963)	-5.302 (0.026) ***	-0.126 (0.002)
DEP	0.950 (0.047)	10.748 (0.045)***	-1.095 (-0.020)
AFF	0.345 (0.403)	-3.676 (-0.036)***	0.427 (0.013)
ANX	-0.483 (-.377)	-11.689 (-.057)***	1.499 (0.029)
EAT	-0.511 (-1.703)	-1.760 (-0.024)	0.728 (0.057)
PER	1.390 (1.096)	-14.125 (-0.061)***	0.326 (0.006)

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

Table 7.14: Moderation analysis results for latent class of childhood poly-victimization.

	Childhood Poly-victimized F(β)	Perceived ISS F (β)	Interaction term (Childhood class x Perceived ISS) F (β)
NUD	0.447 (0.143)	-2.766 (-0.012)**	1.592 (-0.012)
AUD	1.354 (0.424	-2.861 (-0.012)**	0.522 (0.004)
PTSD	1.236 (0.720)	-4.182 (-0.049)***	0.848 (0.012)
DUD	-0.946 (-0.374)	-5.333 (-0.032)***	**3.213 (0.031)*** **
DEP	0.405 (0.136)	-8.885 (-0.045)***	**2.093 ((0.017)***
AFF	0.566 (0.398)	-2.455 (-0.034)**	0.683 (0.012)
ANX	1.085 (0.407)	-8.831 (-0.054)***	0.957 (0.009)
EAT	0.196 (0.205)	-1.182 (-0.021)	0.559 (0.015)
PER	1.789 (0.619)	-10.995 (-0.061)***	**2.186 (0.019)***

Note: OR = odds ratio; CI= confidence interval; β = beta coefficient; SE = standard error; ***p< .001; **p< .01; *p< .05

7.4 Discussion

The present study examined the mediating and moderating role of perceived ISS in the relationship between class of interpersonal poly-victimization and psychopathology. Poly-victimization classes were correlated with nine negative mental health outcomes classified by the DSM-5 and were further correlated with perceived ISS as measured by the ISEL-12. Further, regression analysis showed that the poly-victimization class is significantly predictive of negative mental health outcomes (see Chapter 5). Mediation analysis exposed interpersonal ISS is a partial mediator of the relationship between interpersonal poly-victimization and negative mental health outcomes in all cases except for those in the life-course poly-victimization class who endorse eating disorders. Several indirect effects were also evident. This contradicts the results found by Tremblay et al. (1999) who had examined social support from parents, peers and school teachers in child victims of sexual assault, and Turner et al. (2017) who found availability of social support via family and friends was reduced and did not mediate the relationship between poly-victimization and negative outcomes as measured by distress. Interestingly, analysing data from a sample of 152 children, Lamis, Wilson, King, and Kaslow (2014) found a lack of association between childhood sexual assault and peer support.

This may question if availability or levels of social support are fundamental to positive mental health outcomes for victims. Indeed, under certain circumstances, social support may not be critical to the relationship between certain types of abuse and mental health outcomes. As noted, when social support was introduced to the model

in the current study it did not mediate the relationship between life-course poly-victimization and eating disorders. This is pertinent in the current study given that the life-course poly-victimization class under investigation has the highest endorsement rate of childhood sexual abuse across the poly-victimized classes.

Moderation analysis results shows clear boundary conditions exist only for the class of childhood specific poly-victimization and drug use disorders, depression disorders and personality disorders. High levels of interpersonal social support as measured by the ISEL-12, predicts lower endorsement of mental health difficulties in these cases thus, setting the boundary conditions for the impact of perceived ISS only for these diagnostic categories. The results concur with those of Brinker and Cheruvu (2017), who found that for adults who reported at least one ACE, the lack of social and emotional support predicted endorsement of depression symptomology. Further, Coyne and Downey (1991) noted that people who endorse symptoms of depression are also more likely to engage in help seeking behaviours therefore, there may be more perception of available social support for those people who actively seek and nurture supportive relationships. Given that the evidence indicates that men are less likely to disclose victimisation experiences or mental health concerns (Brown, 2004), this may, in part explain some of the results found in this research.

Clarifying the mechanism by which social support operates to impact mental health outcomes is an important future for the research community. It could inform and support front line practitioners when presented with a male victim and further,

support a call for funding interventions to provide men with physical and emotional resources dedicated to their specific needs.

The perception of social support as being available does not indicate if it is available or if the resources available are always of benefit, or always appropriate to the needs of the person. There is a need to expose what mechanisms are at play but also it would be beneficial to understand if, and when the available social support is too much or too little. As such, there is a distinction to be drawn between social support that is available and social support that is beneficial. Particularly, the lack of available social support as perceived by a victim may impact the relationship between perceived ISS and outcomes; however, for some, having one reliable source of social support relevant to the type of social support the victim needs at a particular time may be the important factor. The perception of social support they have may not meet a particular need, at a given time. Hence, understanding the specific needs of the individual may be the key element in understanding the mediating or moderating role of social support in the relationship between victimisation and psychopathology, rather than perceived ISS as measured by the ISEL-12.

Although more research is needed, these findings would initially support the development of a short needs assessment that could be completed and available to GPs, practice nurses and front-line services who are often the first port of call for men who are symptomatic of various psychopathologies. Assessments such as these could be delivered informally, as part of a trauma focused approach to ensure that treatment pathways are tailored to the specific needs of the victim.

Indeed, some recent non-medical initiatives, targeted at men's health, relieving loneliness and isolation may be of benefit for men and may offer a conduit through which these assessments could be informally delivered. One such initiative, known as the Men's Shed movement (Golding, 2015) has been increasing in popularity. First seen in Australia, these groups are male orientated provisions which encourage and support men's physical and psychological health. They are also spaces where men can socialise with others, learn new skills, share knowledge and access some helpful local resources (Golding, 2015).

Another potential, yet untapped and under-researched resource for men with mental health difficulties is the beneficial relationship with growing plants and vegetables and access to allotments. Fieldhouse (2003) assessed the impact of the growing plants within an allotment style environment on men and women with severe mental health problems. Results showed that being involved in growing plants as part of the group had a positive impact across numerous domains of physical, social and emotional significance and, the focus on what can be achieved rather than the difficulties that a person is experiencing may help meet the needs of those involved and improve quality of life. In a review of the literature on mental health interventions involving gardening, Clatworthy, Hinds and Camic (2013) found benefits for patients across several domains including emotional, social and physical health benefits. One potential future direction for these organisations is to join forces and provide Men's Shed organisations with access to allotments; a simple and effective support package that, if used as a compliment to psychiatric and medical or

drug therapies, a fully interactive biopsychosocial approach, may be effective in elevating much of the distress, and many of the issues that those who are most in need face as they journey and transition from victim to survivor (cf. Fieldhouse, 2003; Golding, 2015).

These initiatives and services however, need fully evaluated longitudinally, to provide an evidence base for any potential benefit available to men who are experiencing negative mental health where they have a profile of poly-victimization, and ensure they are meeting the needs of the men who engage with them. Indeed, Turner et al. (2017), found that for those whose experiences of poly-victimization increased in frequency over time, their perceived social support decreased, and these services may help counteract that deficit in available social support resources. While there appears to be no set prescribed perfect social network profile that offers the optimum social support for men when needed, these initiatives may offer men the options to tap into different resources as and when their need is greatest.

7.4.1 Limitations and Implications

The current study is not without limitations and the results should be considered in light of these. As noted in chapter 6, while the effect sizes exposed in the current study are minimal they remain statistically significant however, further research is again necessary to understand the impact of various types and modes of

interpersonal social support in the relationship between interpersonal poly-victimization and psychopathology.

The NESARC III dataset does not allow for the assessment of victimisation characteristics and there is no information available on age of onset of victimisation experiences. In addition, the duration of any victimisation experience is not recorded. Of note, the ISEL-12 only assessed perceived ISS, other types of social support were not assessed. No consideration was given during the analysis in the current study to any potentially beneficial social interventions that were currently being utilised by participants.

7.4.2 Conclusion

In conclusion, perceived ISS appears to be an important factor in the relationship between interpersonal poly-victimization and negative mental health outcomes; however, it is not critical to the relationship other than for those who suffer childhood specific poly-victimization and develop Drug Use Disorders, Depressive Disorders or Personality Disorders. This would suggest that researchers give priority to understanding the mediational impact of ISS to further establish a baseline of information relevant to male populations. Given that those with mental health problems are often the most marginalised in society (Warner, 2000), further research is needed to fully expose any potential benefit of interpersonal social support. In particular, it should be investigated and understood in relation to other potential

sources of social support so that gender specific treatment pathways can be explored and implemented. To this end, a priority should be to support those in the front-line who are tasked with the daily treatment of men who present with mental health problems who could be in victimisation crisis.

Chapter 8:

A Meaning Extraction Method Analysis of Men's thoughts, feelings and emotions in regard to their experience of victimisation.

8.1 Introduction

The previous chapters have outlined the empirical studies utilising the male sub-sample of the NESARC III, a methodologically robust secondary data set. These chapters have been successful in establishing a baseline of male experiences of interpersonal poly-victimization and the associated negative mental health outcomes as well as the impact of physical health and perceived interpersonal social support. Much research remains to be done, and the current chapter outlines a novel pilot study which aimed to collect qualitative primary data using a relatively new technique, the Meaning Extraction Method (MEM), to examine the cognitions and self-schemas of men who have suffered victimisation experiences. The data collection strategy fell short of MEM standards for analysis, not surprising given that men are known not to disclose these experiences. However, it is important to report this study in the hope that lessons learned here can inform further development of the MEM technique in relation to studying populations that are hard to reach including men who have been victim of interpersonal abuse. Suggestion for improved data collection for this study are detailed at the end of the chapter.

It is well established that men do not come forward to disclose negative interpersonal victimisation events (Brown, 2004); thus, little is known about how they experience personal cognitions in the form of thoughts, feelings and emotions in relation to these victimisation experiences. These cognitions form and impact self-schemas and self-perceptions. That is, how a person thinks and feels about themselves in relation to the world around them.

The association between thought and language has been the focus of study and debate for hundreds of years (Gross, Levitt & Lewis 1996). While it is argued that thought is possible in the absence of language, research into the relationship between thought and language falls into three main categories:

1) There is a causal relationship between thought and language.
2) Thought reflects and depends upon the language used.
3) Though and language begin as separate entities and the merging of these abilities are developmentally dependant.

Adapted from Gross et al., (1996)

8.1.1 Language exposes self-schemas

Stanton, Boyd, Pulverman and Meston (2015) argue that human language reflects the fundamental cognitions that a person has developed such as self-schemas. Indeed, Boyd (2017) states "*The common words a person writes, speaks, and types can be deeply revealing of their underlying psychology*" (p162). Therefore, how people talk about, and express their experiences allows for the examination of their cognitive processes through which we can examine their self-schemas, the thoughts feelings and emotions they hold about themselves. In order to expose and measure these cognitions, examining the words a person uses would be a pertinent line of enquiry.

8.1.2 Schema Theory

Schemas are described as "*organised packets of information about the world, events, or people stored in long-term memory*" (Eysenck & Keane, 2010, P.401). Further, Cash (2012) argued that a self-schema is "*a mental structure that represents one's views of oneself that organises past experience of the self and provides a framework for future understanding and processing information about the self*" (p.334).

These mental representations are based on the past experiences of a person and they allow one to move through the environment, able to process and predict the world around us (Eysenck & Keane, 2010). Indeed, new information is assimilated into the existing schema and thus, individuals develop unique schemas based on their individual experience and cognitions (Widmayer, 2004). For example, most adults will have a stored schema or script for regular situations they find themselves in such as going to a restaurant (Schank & Abelson, 1977). This means that the person is aware of the general pattern of what to expect, the restaurant will most likely have tables and chairs, food is ordered from the menu, the waiter or waitress will bring the food and payment must be made before exiting the restaurant (Gross et al., 1996).

Self-schemas operate in a similar way, they are developed through repeated experience from childhood (cf. Bowlby 1973, 1980) and as they become entrenched over time, they are believed to be particularly resistant to change (Markus, 1977).

Importantly, self-schemas are relevant to how a person perceives the self and ways in which they process information which is pertinent to the self. These self-schemas are believed to direct the evaluations a person makes of their own behaviour (Markus, 1977) thus, impacting a person's thoughts, feelings and emotions about themselves and their behaviour (Bargh & Tota, 1988).

Self-schemas in sexual research has attracted some attention in recent years. Stanton et al., (2015) examined the sexual self-schemas of adult females by examining essays written by 239 women about feelings they have around sex and their own sexuality. They found seven themes emerged from the data including virginity, abuse, sexual activity and existentialism. Andersen, Cyranowski, and Espindle, (1999) examined sexual self-schema in a population of 165 undergraduate men. Three dimensions emerged from the data: passionate-loving, powerful-aggressive and open-minded-liberal. In this research, lists of adjectives that describe traits were rated by men in the first stage of the study and only the words with the highest ratings were retained for further investigation. In this way the researchers subjectively chose the words or adjectives to be used as the starting points. While this has led to the development of scales that are quick and easy to use, (cf. Zuckerman, 1960); they may not fully capture the dimensions they truly seek to examine. Research advances in the areas of cognition and linguistics in recent years have seen the development of techniques which allow the examination of multiple scripts written in participants own words. Research based on the natural language of participants would allow for the participants to direct the research rather than the linguistic skills of the researchers

and would be a more appropriate way to evaluate the participants thoughts, feelings and emotions. This concurs with Boyd (2017) as outlined above.

8.1.3 Text Analysis

In recent years, advances have also been made that allow a merging of computer sciences and psychological investigations (Boyd, 2017). Indeed, this integration has allowed advanced techniques to be developed to assist theme extraction from scripts written in natural language. These "*topic modelling*" techniques (Stanton et al., 2015. p1) have been used in recent times to understand the sexual self-schemas of adult females (Stanton et al., 2015), the relationship of in-patient/out-patient care transitions (Wolf, Chung, & Kordy, 2010), and behaviours associated with alcohol consumption (Lowe et al., 2013).

These techniques allow researchers to capture and observe human thought directly as the participants express it in their own words. Given the non-invasive nature of this technique, it lends itself well to the understanding of sensitive topics such as victimisation and abuse experiences.

8.1.4 Meaning Extraction Method (MEM)

One of these automated computerised language analysis methods is the MEM technique (Chung & Pennebaker, 2008), and it is argued to be beneficial over

traditional methods of text analysis techniques such as Linguistic Inquiry and Word Count (LIWC; Pennebaker, Francis & Booth, 2001) as it allows for the nuances in natural language to be understood rather than using a researcher's predefined list of words to analysis the content of data scripts (Stanton et al., 2015).

The MEM technique identifies meaningful word clusters and exposes high frequency content words while ignoring function words. Inflections are collapsed for example run, runs and running. Chung and Pennebaker (2008) employed the Meaning Extraction Method to examine dimensions of thinking in response to open-ended enquires relating to self-description narratives. They examined written scripts over a three-year period from a sample of 1,165 American college students studying psychology and found seven factors of self-description; "*Sociability, Evaluation, Negativity, Self-Acceptance, Fitting In, Psychological Stability and Maturity*" (p.14). Further, Wolf, Chung and Kordy (2010) analysed 4,241 emails sent to a psychotherapy aftercare program by a total of 297 patients posttreatment. When the most commonly used nouns were analysed, nine themes were exposed including "*life decisions and coping, relationship conflict, psychological and physical symptoms, family of origin, social and leisure activities, present family and household, treatment, exercise and diet, and work*" (p. 71), with variations by gender, age and therapeutic gain.

To enable the analysis, it is recommended that the texts are all of similar size with a minimum word count set at half that of the maximum. For example, if a maximum word count is set at 500 words then the minimum would be set at 250 words. Further,

where there are texts within the data that are larger than the maximum size set, these should be segmented. One of the strengths of the MEM technique is that words are extracted from the text without the need for subjective raters. This means that researchers own privately held attitudes, stereotypes or prejudice are not involved in, nor able to bias the analysis of the data. The Meaning Extraction Helper Software (MEH-V2.1.05, Boyd, 2018), a freely available downloadable program carries out these steps in a convenient and easy manner.

A factor analysis in the form of a Principle Component Analysis (PCA) is then conducted to establish how these content words relate to each other. Given that participants in a study can type responses when they are physically located anywhere in the world that they have access to a computer or a smart phone, this method dissolves the barriers for researchers to target research in geographical distanced populations without location being an issue.

8.1.5 Normative Male Alexithymia

One pertinent note in the analysis of lexical based data is that of NMA as outlined in chapter 1. Introspection is the ability to interpret internal emotional feedback; alexithymia is a term used to describe a person who has difficulty describing or identifying emotions (Levant et al., 2014). As previously discussed, boys and men are socialised to the macho stereotypes that stymie emotions and thus, may result in an

inability to recognise, verbalise and label internal emotional responses (Levant, 1995).

8.1.1 Aims and Objectives

This study seeks to uncover and interpret the thoughts, feelings and emotions of men who have been victims of interpersonal victimisation experiences in their own words, using a semi-automatic lexical approach. This small scale exploratory study will be assessed and critiqued to allow redevelopment for future research if necessary.

8.2 Methods

8.1.1 Design

The study was designed using the Chung and Pennebaker (2007) protocols of MEM techniques to establish the thoughts, feelings and emotions of male victims of interpersonal trauma and abuse. It was expected that data collection would be difficult given the nature of the topic under investigation and that males are notorious for non-disclosure (Brown, 2004). That said, this was an exploratory study conducted as pilot study, with the secondary intention that the study could be assessed and redeveloped in the future to improve data collection and analysis protocols.

8.1.2 Ethical Approval

Dr Melisa Milanac (PhD), a clinical psychology with an extensive research portfolio and expertise in PTSD and sleep research in veterans at the Medical University of South Carolina (MUSC) was consulted as to suitable training. The researcher completed and passed an online course on Cognitive Processing Therapy (MUSC). Dr Milanac was further consulted as to the appropriateness of the questions developed for the study and agreed that the format of the questions was in line with the protocols laid down by Chung and Pennebaker (2007).

An online questionnaire was created on the Qualtrics platform and submitted with a research protocol and appropriate form, to Ulster University Psychology School Research Committee. This was advanced to the Ulster University Research Ethics Committee (UREC), along with information on the EU-US Privacy Shield framework and the physical location of the EU data silo location and security. Ethical approval and permission to proceed was granted by UREC (see Appendix 7).

8.2.3 Participants

Participants were drawn from the male sub section of the general population of the USA. Participants were asked to confirm they were

- age 18 years and over
- male
- ordinarily resident in the USA

- have previously experienced a victimisation event but not in the preceding six months

Recruitment was conducted online through social media sites Twitter and Facebook. Colleagues of the researcher from across the UK and America were encouraged to re-tweet the information about the study. The recruitment information was tweeted four times over three months and the recruitment notices were re-tweeted 26 times. The researcher's web site was also used to host a link to the study. Two male victimisation support charities located in America were also contacted and it was agreed, as they had an online presence and were willing to host a link to the study with promotion details, this would be arranged. Details of these charities can be found in Appendix 5. Due to data protection, no identification details were collected from these web sites as to ISP addresses, the number of views or the number of times the link was accessed.

Participants were offered the opportunity to enter a $50 voucher draw for amazon online marketplace which was carried out at the end of each month where participants completed the study. An example of the twitter feed for recruitment read:

“Are you male and over 18 years of age. Have you ever been a victim of abuse or trauma that was of a personal nature. Would you like to take part in a study to help understand men thoughts, feelings and emotions when they have been victims of personal abuse or trauma.

Click on this link (link appeared here)

Once finished, you have the opportunity to enter a free draw for a $50 Amazon e-voucher. This study is being carried out as part of a PhD thesis and ethical approval has been granted by Ulster University.”

8.2.4 Measures

Demographic information was gathered at the outset of the survey including age, ethnicity, residential status, relationship and employment status, sexual orientation, mental health history and abuse experiences.

8.2.4.1 Age

Participants were asked to indicate their current age in years, at their last birthday. Age was then grouped in line with the categorisation used in the NESARC III (Grant et al., 2014) for consistency, and coded as (1) 18-29 years, (2) 30-39 years, (3) 40-49 years, (4) 50-59 years, (5) 60-69 years, (6) 70+ years

8.2.4.2 Ethnicity

Participants were asked to what ethnic background or race they identify with, with the opportunity to endorse multiple options. Options included and were coded as (1) White, non-Hispanic, (2) Black, non-Hispanic, (3) American Indian/Alaska Native, non-Hispanic, (4) Asian/Native Hawaiian/ Other Pacific Islander, non-Hispanic, (5) Hispanic, any race. If multiple categories were endorsed, then the lower numeric categories was used for the analysis. This coding is in line with the NESARC III (Grant et al., 2014) for consistency with the other chapters.

8.2.4.3 Residential Status

Residential status was queried in one question, “Are you ordinarily resident in the USA?”. Participants could endorse (1) Yes or (2) No. Any participant who endorsed (2) No was automatically redirected to the end of the study.

8.2.4.1 Relationship Status

Participants were asked “What is your current relationship status?” The available choices were coded as (1) Single, (2) Dating, (3) Living with a romantic partner, not married, (4) Married, (5) Separated, (6) Divorced, (7) Widowed.

8.2.4.4 Sexual Orientation

Sexual orientation was queried by one question “What is your sexual orientation?”. Options included and were coded as (1) Heterosexual (male & female), (2) Same sex (male & male), (3) Bisexual (male & male or female), (4) Asexual (neither male or female), (5) Demisexual (emotionally attached) and (6) Other.

8.2.4.5 Mental Health History

History of mental health problems was queried by one question “Have you previously experienced symptoms of, or been diagnosed and/or treated for any of the following? (tick all that apply)”. Options offered to the participants were coded as (1) Anxiety, (2) Depression, (3) Post-Traumatic Stress Disorder, (4) Addiction to alcohol, (5) Addiction to prescribed drugs, (6) Addiction to illegal drugs, (7) Personality disorder (please state) and (8) Other.

8.2.4.6 Interpersonal Abuse History

History of interpersonal victimisation and poly-victimization was queried by one question where participants could endorse any or all options coded as (1) Childhood neglect, (2) Childhood physical abuse, (3) Childhood sexual abuse, (4) Bullying, (5) Witnessing domestic violence as a child, (6) Assault without a weapon, (7) Assault with a weapon, (8) Mugging, (9) Intimate partner violence without a weapon, (10)

Intimate partner violence with a weapon, (11) Unwanted sexual attention, (12) Rape (including penetration), (13) Stalking, (14) Coercive control (emotional and psychological abuse through threats and restrictions against you), (15) Elder abuse.

Targeted self-descriptive essays querying thoughts, feeling and emotions in relation to victimisation experiences were completed. These essays allowed for a stream of consciousness in regard to

1) telling other people about your victimisation experiences and what had happened to you
2) how you see yourself and your place in the world around you?
3) your own self-esteem and your own feelings of self-worth *(your belief and confidence in your own abilities).*

8.2.4.7 Procedure

Participants who logged into the study were initially asked to read the Participant Information Sheet (PIS), which introduced the study. Once participants confirmed they had read the PIS they were taken forward to the consent questions of the survey. If any consent was withheld the participant was taken to the end of the survey sheet, thanked for their time and removed from the study. Once consent was obtained, participants were asked the demographic questions.

The initial stage of the free writing task allowed participants to talk about their experiences. This statement was displayed for the participants with the option to write at will:

> "*Some people find it helpful to share their experiences. If you would like to write about what happened to you, please do so here. We will ask about how you feel about these experiences in the next section. Please write freely. Alternatively, skip to the next question."*

This was to allow the participants to settle into the study and keep the focus on themselves. This was further reinforced by the use of a mirror in the final stage of the study. Participants were guided to the self-awareness tasks, where they were instructed to look at themselves in a mirror for five to ten minutes if they had one available. See Appendix 7. In line with standard MEM instructions as set out by Chung and Pennebaker (2008), and referring to Cognitive Processing Training (CPT) completed by the researcher, the online instructions read:

"*Now I would like you to think for five to ten minutes about any victimisation experiences that you have suffered. Look in the mirror and see yourself and who you are. Gaze into your own eyes, look at your face. See yourself as others see you and how you see yourself. While looking at your image, think about where you are in your life, your connections to others, and who you really are. Think about how your experience of victimisation made you feel about yourself, how this did or did not*

impact your thoughts, feelings and emotions, and how you feel about the person that you are today. After five minutes of reflection please continue to the next stage."

Once ready, the participants clicked the next link that started the main area of the study. Three sets of instructions were then presented to the participants in turn, once the participant had submitted their script in response to the first question, the second question was displayed, and this was repeated for the third question. The online instructions read:

(Question 1)

> "*Please read the following statement and write your comments below. Thinking about yourself what were your thoughts, feelings and emotions about telling other people about your victimisation experiences and what had happened to you? This could include things like - Did you feel you could confide in your friends or family about what happened to you? How did you feel about reporting these experiences to the police or other statutory organisations or agencies? Did you think or feel there was anything preventing you from telling another person about your experiences? Please write freely."*

(Question 2)

"Please read the following statement and write your comments below.

Thinking about yourself, what are your thoughts, feelings and emotions about how you see yourself and your place in the world around you? This could include things like feeling confident or nervous around other people, feeling that you fit in or perhaps you feel people judge you? Do you think your experience of victimisation has impacted how you view who you are and how other people view you? Please write freely."

(Question 3)

"Please read the following statement and write your comments below.

Thinking about yourself and your experience of victimisation, what are your thoughts, feelings and emotions about your own self-esteem and your own feelings of self-worth (your belief and confidence in your own abilities). Do you see yourself, or think others see you as a person who makes emotional connections to other people? Do you feel, or do you think others feel you make a worthwhile contribution to your community? Please write freely."

Once completed, participants submitted their responses and were then taken to a thank you/debrief sheet which included details of organisations that provide support

for victims of interpersonal violence and abuse (see appendix 2). The end of the study then provided details of how to enter the $50 Amazon voucher prize draw.

8.2.4.8 Strategy for Text Analytics

At this point, each text is converted to a single plain text file (.TXT) ready for analysis in the Meaning Extraction Helper Software V 2.1.04 (MEH, Boyd, 2018). In line with the recommendations of Chung and Pennebaker (2007), the participant's most frequently utilised adjectives in the scripts, which serve to expose the structure of cognitions and self-perception of the experience of victimisation in a traditional lexical approach, are extracted at this point. The MEH software (Boyd, 2018) outputs a frequency count of the words and a percentage of the total number of documents that the word appears in, this allows for a cut off point for the frequency of the use of adjectives, setting the criteria for words that would go forward into the PCA. Chung and Pennebaker (2007) recommend that words used in at least 3% of all scripts should go forward to the next stage of analysis.

PCA is the superior methodology to establish strong patterns of words in the data as it reduces the complexity of the data to principal components and thus, the data becomes more manageable (Jolliffe, 2011). The initial stage of the PCA is to examine the Kaiser-Meyer-Olkin Measurement of Sampling Adequacy to ensure the data exceeded a value of .6 showing an adequate sample size. Bartlett's Test of Sphericity

would be examined for statistical significance and multicollinearity would be examined. All analysis is carried out in SPSS23 and MPlus 7.3.

Extraction is exploratory in nature and PCS with an orthogonal, varimax rotation is utilised. Items which load at .4 or above (Stevens, 1996) would be retained for further analysis. Reliability analysis is carried out on each factor. The number of factors retained would be determined when consulting the Kaiser's eigenvalue criterion and Cattell's Scree Plot. Parsimony is also considered when deciding on the number of factors to retain. Each individual factor would be subjected to Cronbach's Alpha (α) analysis as a test of internal reliability. Factors would be labelled as appropriate.

8.3 Results

Only five participants logged into the survey. The available demographic data is detailed in Table 8.1.

Table 8.1: Demographic data for the five participants who completed or part-completed the survey.

Participant No.	Age	Ethnicity	Sexual orientation	Relationship status	Employment status
1	27	Black non-Hispanic	Heterosexual	Married	Full Time
2	44	White non-Hispanic	Same sex	Dating	Full Time
3	51	White non-Hispanic	Heterosexual	Single	Unemployed
4	41	White non-Hispanic	Heterosexual	Married	Full Time
5	53	White non-Hispanic	Heterosexual	Married	Full Time

Participants were asked to endorse all and any victimisation experiences that they have experienced from a comprehensive list as well as any diagnosis or symptomology of psychopathology. These details can be viewed for each participant in table 8.2.

Table 8.2: Victimisation endorsement and negative mental health endorsements for each available participant.

Participant No.	Victimisation experience(s) endorsed	Psychopathology endorsed
1	Childhood Sexual Abuse	
2	Childhood Neglect Childhood Physical Abuse Childhood Sexual Abuse Assault Assault with a weapon Mugging Unwanted Sexual Attention Coercive Control	
3	Childhood Physical Abuse Childhood Sexual Abuse Bullying	
4	Childhood Physical Abuse Childhood Sexual Abuse Bullying Unwanted Sexual Attention Coercive Control Stalking	
5	Childhood Physical Abuse Childhood Sexual Abuse Bullying Unwanted Sexual Attention Assault Assault with a weapon Unwanted Sexual Attention Rape	Anxiety Depression PTSD Addiction (Illegal Drugs)

8.3.2 Narratives returned by the sample

The study failed to attract sufficient data for analysis, thus no factor analysis could be carried out to assess themes within the data however, two participants attempted the narrative section of the survey.

Participant 1 stated:

In answer to question 1:

- I feel I do have self-worth and a good self-esteem. I don't typically let people run over me. I do speak up for myself more, if I was disrespected. I do make positive connections to other people. Others do think I make worthwhile contributions to my community.

in answer to question 2:

- I see myself as a happy guy. I sometimes think I'm too small of a guy, and sometimes I think I'm too nice. But overall, I feel like I'm welcomed and helpful to others around me. I do think my experience of victimization did impact how I viewed myself and how others viewed me. After that experience, my view of my own masculinity lessened, because this guy touched and kissed me and I didn't do anything about it. Since I was really young after that experience, I got curious in the wrong experiences, like kissing non-family members on the lips. When I got older in my adolescent years, I stopped that, but still felt like my body could be viewed as attractive to anyone.

In answer to question 3:

- I didn't want to tell anyone because I felt ashamed, guilty and responsible for allowing that to happen to me to begin with. I was so young when that happened to me that it confused me into thinking this is something I should keep doing with him, so it was like a secret I should keep. I think I knew I could tell my family, but my response went from shock (and frozen) to feeling somewhat emotionally aroused, which I later learned was perverted and manipulation on my mind. As I became older, I realized I liked girls and knew that experience was something I regretted. Reporting this experience to the police wasn't much of a thought when I was five.

Participant 5 wrote:

In answer to question 1:

- Never really feel like I fit in with the people around me.

In answer to question 2:

- I don't feel like I can confide in people. And yes I let police know and perpetrator went to prison for life.

in answer to question 3:

- I have self-worth now. But it took 30 years of recovery to get that. And yes I do make worthwhile contribution to my community.

8.4 Discussion

The current pilot study attempted to assess men's thoughts, feelings and emotions in their own words by using a MEM strategy of text analysis. Data collection fell short of the required quantity for MEM analysis however, several key thoughts of the men who completed the study are highlighted here. Of note, the only participant to endorse negative mental health issues was also the only participant to endorse rape in his profile of victimisation.

This concurs with the research outlined in this thesis which exposed profiles of interpersonal poly-victimization by LCA (see chapter 4), where the profile with multiple victimisation experiences including rape showed higher rates of psychopathology in a regression analysis (see chapter 5).

8.4.1 Cognitions

How someone views themselves, their self-cognitions and self-schemas is important to that person's self-esteem. This cognitive self-view, which is part of the self-schema, is written and re-written to match that persons view of themselves as it currently is (Greenwald 1980; Ross & Conway 1986). This is vitally important when considering the negative emotions that a person can experience as a victim of interpersonal victimisations and abuse. Kelly, Burton and Regan (1998) quoted one participant as saying, "*you are shit and not important, you take this on and allow others to hurt you, for that is the norm for you*" (p.12).

These experiences and feelings may be internalised and absorbed into their identity self-schema. Ross and Conway (1986) purported that people will re-write their private personal histories to match and support their present self-view. This may be reflected in the discourse that surrounds cognitive dissonance; re-writing one's history to conform to the self-view beliefs may avoid the stress of competing beliefs. In the current study participant 1 stated "my experience of victimization did impact how I viewed myself" and this could show a change or re-writing of his self-belief schema which protects his self-esteem.

Participant 1 also wrote "my view of my own masculinity lessened". This is relevant when we consider that boys and men are socialised to norms that imply a strong sense of masculinity reinforced by family and social networks, culture and popular media depictions of what it is to be the ideal man (Connell & Messerschmidt, 2005; see chapter 1). Indeed, Javaid (2017) argued that for male victims of sexual victimisation and rape there exists a "masculinity crisis" (p.1).

8.4.2 Affect

Feelings of fear, anger, shame and guilt are common affects associated with traumatic events and further, in the development and persistence of psychopathology, specifically PTSD (Lee, Scragg & Turner, 2001). Participant 1 stated he had feelings of shame and guilt, and these feelings are commonly reported among populations who have experiences of a variety of traumatic and victimising events

(cf. Dorahy et al., 2013; Hoglund & Nicholas, 1995; Malecki, Rhodes & Ussher, 2018). In particular, feelings of shame and guilt have been shown to impact the sense of self, potential help-seeking behaviours (Andrews, 1995, 1998), and hinder emotional processing of traumatic events and post-traumatic reactions (Joseph, Williams & Yule, 1997).

8.4.3 Behaviours

Alaggia and Millington (2008) investigated childhood sexual abuse in a population of 14 male survivors and exposed a theme they labelled "Early Sexualization" (p.269). This theme was concerned with sexual development and sexual behaviours and they report severe sexualised acting out behaviours described by all the participants in their study. In the current study Participant 1 reported "*feeling somewhat emotionally aroused, which I later learned was perverted … after that experience, I got curious in the wrong experiences*". This would support the findings of Alaggia and Millington (2008) and is a pertinent line of further enquiry in male victims of interpersonal poly-victimization.

8.4.4 Disclosure

One final point that attention should be drawn to is a further statement by Participant 1 who wrote that his experience was "*a secret I should keep*". This is a common theme in research into male victimisation experiences and shows once

again, evidence for men not disclosing these experiences. (cf. Brown, 2004; Gregory & Lees, 1999). Going forward, it is important to reach child victims of interpersonal poly-victimization to ensure they know it is safe and appropriate to disclose what is happening to them so as to break the coercive nature of perpetrators who want their actions kept secret.

8.4.5 Implications

Lack of data as outlined above, means the data analysis plan could not be exercised as detailed for this study. Thus, lack of analysis means implications cannot be drawn from the current study. However, when examining the limited content of the scripts returned in the study, it is clear a replication of this study with sufficient scripts submitted, would be beneficial for researchers and practitioners who seek to support and understand male victims of interpersonal poly-victimization, in the context of their own words. See 8.5 for a detailed breakdown of suggestions that should be considered for the improvement of data collection in future versions of this study. That said, some tentative discussions could be proposed in light of the limited data found here.

All five participants who completed the demographic section of the study endorsed victimisation indicators in childhood, therefore intervention programs should be developed that consider starting with young children being coached to respect each other, regardless of gender. It is also important to understand the cognitions of male

victims so that gender specific treatment pathways can be developed, that meet the specific needs of male victims at the level that their need exists.

8.4.6 Conclusion

In Conclusion, there is value in studying lexical based data when the content words are directed by the participants. This type of data and analysis exposes fundamental cognitive processes underlying self-perceptions and self-schemas and can be useful to expose thoughts, feelings and emotions in men related to interpersonal victimisation experiences. Thus, support and treatment pathways can be developed that are gender specific, adding to the development of psychological and social instruments and tools that can be utilised by clinicians and those who are in the front line of treatment utilities.

8.5 Suggestions for the improvement of data collection

To improve data collection, consideration should be given to the distance between the researcher and the participants. Recruitment for the current study was attempted online. Some of the previously published MEM studies have been conducted in relative close proximity to the researcher for example, Chung and Pennebaker (2007) recruited students from the classes of one of the researchers. Researchers were directly in contact with the students and this may have influenced the rate of response. Another method of obtaining data that has been used

successfully in a MEM study is to obtain secondary data via previously published information from online sources, indeed, Kramer and Chung (2011) analysed Facebook status updates of four million English speaking users.

While on-line recruitment via social media would enable researchers to investigate populations anywhere in the world that access to the internet is readily available, it may be that the general population is not in the mindset where this is possible to directly engage via mobile devices, whether by completing an online survey or a verbal interview. For example, McBride, Morgan and McGee (2012) found that even though a large proportion of people own a mobile or smart phone, recruitment to interview through mobile devices has several problems associated with it when compared to recruitment via landline telephones. For example, many children own mobile devices and establishing the eligibility of the person who answers the phone may not be an easy task. Further, given that these phones are mobile by nature, the person answering the phone may not be in a safe location, or may be in an area where they could incur a charge from their service provider for their activities, an issue that does not arise when using landline telephone numbers to conduct interviews.

That said, telephone interviews may be one possible solution to the recruitment of a MEM study of interpersonal poly-victimization in men, conducting a telephone interview that can be recorded and transcribed at a later date could aid data collection. This does however mean that the work load on the researcher would increase considerably, it may be one solution to obtaining the data.

Given the researcher was located in the UK and recruitment was targeted to the USA (in line with the data utilised in the previous empirical chapters) this was considered a sensible and economic solution to enable data collection. Further research in this area could be conducted in where the researcher and participants are in much closer proximity. For example, a co-investigator could be recruited in the geographical region of consideration to work with any available local charities that support male victims of interpersonal poly-victimization or in areas where men congregate. This may aid recruitment and facilitate the collection of high quality data. Given the nature of the subject under investigation and the protocols that guide the wording of the questions, having a researcher in close proximity may increase engagement.

Further, utilising existing men's support agencies and any available data that may already be available to these organisations may give a wealth of secondary data, subject to ethical approval. For example, the AMEN (Abuse against Men) support network in Ireland have previously published booklets of thank you letters from service users who contacted the network for support (AMEN, 2018).

It is possible, that even though people have a very high internet use via social media platforms, that people are just not quite ready to engage and divulge their private thoughts, feelings and emotions in relation to the most deleterious of victimisation experiences.

Chapter 9:

Research Summary and Future Directions

9.1 Introduction

The current chapter will summarise the research carried out in this thesis by examining each of the research questions and the studies utilised to answer them. Provision specific to male victims will be discussed with suggestions for future directions of such provisions. A final line of dialogue will consider the gender discourse surrounding victimisation experiences.

The current thesis found a significant lack of literature available concerned with interpersonal poly-victimization in males. Profiles of interpersonal poly-victimization which constellate within the male population are exposed; one profile shows low or no victimisation experience across the life-course, one childhood specific typology and one exposed experience of life-course poly-victimization (Chapter 4). The childhood and life-course profiles confirm a significant and devastating impact on mental health (Chapter 5). Of note, this thesis confirms that self-perceived physical health (Chapter 6) and perception of interpersonal social support (Chapter 7) impact the relationship between typology of interpersonal poly-victimization and psychopathology. Further, a novel investigation of the thoughts, feelings and emotions of victims, explores self-perception and self-schemas of these men in their own words (Chapter 8). As such, the current thesis makes a unique contribution to the subject of interpersonal poly-victimization in males.

This thesis provides a unique contribution by highlighting the dearth prevalence and consequences for male victims of interpersonal poly-victimization by highlighting six

research questions important to the field of interpersonal poly-victimization in male populations. These research questions were outlined in Chapter 1 and are consistently addresses throughout the thesis. This current chapter will re-iterate these questions and will summarise the conclusions to each. Implications for provision and policy will also be discussed in association with proposals for future research.

9.1.1 Thesis research outline

To achieve this, the current thesis conducted a systematic literature review (SLR, Chapter 2) to examine the extent of the knowledge of typologies or profiles of interpersonal poly-victimization across the life-course in male samples. A detailed assessment of latent classes of interpersonal poly-victimization was carried out employing latent modelling techniques (in Chapter 4), and further, evidence in relation to the predictability of latent classes to forecast negative mental health outcomes in line with the diagnostic criteria of the DSM-5 was assessed (Chapter 5). The final chapters assessed the relationship between self-perceived physical health (Chapter 6), and perception of interpersonal social support (Chapter 7), in relation to the latent classes and psychopathology, thus beginning the investigation of risk and resilience factors that may impact outcomes for male victims of interpersonal poly-victimization.

9.2 Research summary

9.2.1 Current empirical evidence

Research Question 1: *What empirical evidence exists detailing profiles of the male experience of interpersonal poly-victimization across the life-course?*

This research question was addressed in Chapter 2. The distinct lack of available literature for review in chapter 2 has revealed a substantial gap in the literature with relevance to both poly-victimization experiences in males and the extent of life-course poly-victimization. The largest body of work available in the area of interpersonal poly-victimization is in relation to the experiences of female populations. This would suggest that future research needs to address this gap in the literature by specifically targeting male populations who are victims. The main findings of this methodologically robust systematic literature review are that interpersonal poly-victimization and trauma in men has a significant and devastating impact on mental health outcomes including anxiety, depression and PTSD. Interpersonal poly-victimization across the life-course results in a cumulative impact on some victims in a dose-response fashion.

9.2.2 Typologies of Interpersonal Poly-victimization

Research Question 2: *Do typologies of interpersonal poly-victimization exist in the male population?*

In Chapter 4, LCA was used to assess the extent to which interpersonal poly-victimization experiences constellate within the male population. The main findings can be summarised succinctly; 3 classes or profiles of interpersonal poly-victimization within the data. The first class was the largest class and showed low or no interpersonal poly-victimization other than a small endorsement of psychological abuse and neglect in childhood. The second class was the next biggest class and exposed a profile of interpersonal poly-victimization experiences in childhood only. The final class, and the smallest class, showed a profile of interpersonal poly-victimization that stretches from childhood right across the life of the men in the sample. This class also endorsed the highest rate of childhood sexual abuse and sexual assault in adulthood. Of note, future research should examine if profiles of interpersonal poly-victimization which contain high rates of sexual assault in childhood or adulthood increase the risk of further victimisation experiences or re-victimisation experiences across the life, that is, by how much does the experience of sexual assault increase the likelihood of further victimisation experiences compared to profiles that do not contain sexual assault. Previous studies that have utilised LCA have found underlying discreet typologies in differing populations and that would suggest the profiles exposed in this chapter are robust.

9.2.3 Predictability of Psychopathology

Research Question 3: *Do specific typologies of interpersonal poly-victimization in males predict negative mental health outcomes?*

Chapter 5 extended the work conducted in Chapter 4 by using associated latent class membership to examine the predictability of those classes to the diagnoses of nine DSM-5 psychiatric disorders. The main findings revealed an increased risk for the childhood specific victimisation class when compared to the reference class, showing that interpersonal poly-victimization experienced in childhood increases the risk of being diagnosed with any of the psychopathologies assessed. Odds Ratios in the regression analysis showed and elevated risk of over two and a half times the risk of a depressive disorder, over twice the likelihood of an anxiety disorder and almost four times the likelihood of PTSD.

Of grave concern, the group categorised as having experienced life-course poly-victimization showed a similar pattern of elevated odds across all psychopathological outcomes, however with a further elevation in the risk of diagnosis. Depressive disorders were found to be over three times as likely, anxiety disorders were almost three times as likely and PTSD was found to be over five times as likely, when compared to the class of low or no poly-victimization. These are worrying findings given the lack of research in this area and warrant further investigation. It is important to acknowledge that not all people who suffer victimising experiences will develop psychopathology and equally, not all psychopathology will be the result of

victimisation experiences but for those who do suffer, treatment options should be developed from empirically sound research.

9.2.4 Physical Wellbeing in relation to Psychological Wellbeing

Research Question 4: *Does physical health status mediate the relationship between interpersonal poly-victimization in males and psychological health status?*

Chapter 6 sought to examine if self-perceived physical health mediated the relationship between interpersonal poly-victimization typology and negative mental health outcomes. A noteworthy finding was that self-perceived physical health, which could be considered as a person's sense of wellness, partially mediated the relationship between class of interpersonal poly-victimization and substance use disorders (Zschucke et al., 2012), PTSD (Rosenbaum et al., 2015), depression and anxiety (Goodwin, 2003). As noted in this chapter, there is a distinct lack of research regarding physical health and wellbeing in relation to personality disorders and this is an area that should be further investigated. Of interest, it was not expected that self-perceived physical health status would mediate the relationship between class of interpersonal poly-victimization and eating disorders given that previous research has suggest a significant correlation between eating disorder diagnosis and persistently high levels of physical exercise (Shroff et al., 2006). The results found in this chapter conflict with this, suggesting that for those who are diagnosed with an eating disorder and perhaps engaging in high levels of physical exercise, does not necessarily indicate feeling of self-perceived physical health and warrants further

investigation. It is necessary to advance research in this area to identify if any physical intervention, for example learning to moderate exercise or engage in exercise would be of benefit to those diagnosed with eating disorders and personality disorders.

9.2.5 The Role of Interpersonal Social Support

Research Question 5: *Does Social Support have a mediating or moderating role in the relationship between typologies of interpersonal poly-victimization in males and psychopathology?*

Chapter 7 was pioneering given that it assessed the role of perceived interpersonal social support in the relationship between interpersonal poly-victimization and negative mental health outcomes. The main findings revealed that interpersonal ISS partially mediated the relationship between the class of childhood poly-victimization and all diagnostic categories of negative mental health outcomes. Interpersonal ISS also partially mediated the relationship between life-course poly-victimization class and psychopathology except in the case of eating disorders.

Considerable research has been carried out which establishes that social support has a positive impact on mental health (cf. Berkman et al., 2000; Leach, 2014; Uchino, 2004) however, a lack of consistency in the operationalised definition of what social support is, has led to a multitude of theoretical models proffered to explain the phenomenon. It is known that males do not have the same level of social support availability as females (Vaux, 1985). This Chapter's results contradict those of Lamis

et al. (2014). Mediation analysis in this chapter exposed boundary conditions exist only in the cases of childhood specific poly-victimization and drug use disorders, depression disorders and personality disorders. These results suggest two important directions for further research. Firstly, the results from chapter 6 and chapter 7 imply that eating disorders in men are different in some factor or multiple factors from other psychopathological diagnostic categories and further research is necessary to elucidate the eccentricities and intricacies of this complex disorder in relation to interpersonal poly-victimization experience. Secondly, social support may impact the relationship between interpersonal poly-victimization and negative mental health outcomes however, evidence suggests that the experience of interpersonal victimization may impact the availability of interpersonal social support that can be mobilised in times of need, thus, social support may have a bidirectional relationship with either interpersonal poly-victimization and/or psychopathology.

Future direction should include research to clarify the operational definition of social support and illuminate the mechanisms by which social support operates in relation to victimisation experiences and mental health outcomes. This is important to enable interventions to be developed for male victims of childhood abuse and victimisation, timely interventions could help stem the difficulties that young victims experience and thus, reduce the difficulties that may follow these children into adulthood and further, across the life-course.

9.2.6 Thoughts, feelings and emotions of men in their own words

Research Question 6: *What is the lived experience in their own words, of men who have been victims of interpersonal poly-victimization experiences?*

A methodological robust study was designed to answer this question (Chapter 8) however, given that men are notorious for not disclosing victimisation experiences (Brown, 2004), recruitment was expected to be difficult. This was the case and insufficient recruitment has meant that no statistical analysis could be performed on the available data.

That said, this innovative and ground-breaking research, which combines psychological lexical based research, computer technologies and statistical analysis, by using a semi-automated technique to examine written data obtained from participants, is an extremely pertinent line of enquiry and should be carefully considered, developed and utilised further. The small amount of available data from this novel approach concurs with previous findings that interpersonal victimisation impacts the lives of men in areas of cognition (Kelly et al. 1998), affect (Andrews, 1995, 1998), behaviour (Alaggia & Millington, 2008) and non-disclosure (Cohen, 2014; Gregory & Lees, 1999). This novel research exposes the cognitive processes which underpin self-perceptions and self-schemas that victimised men develop and experience over their life-course. Gaining insight into the cognitions of male victims will help expose where and when interventions may be the most supportive and impactful to support these victims.

9.3 Strengths and Weaknesses of this Thesis

Before a more detailed discussion of these findings and wider implications, the main study strengths and weaknesses will be reviewed briefly. Each chapter includes a specific limitations section which examines methodological considerations of the individual research techniques utilised in the chapter.

In general, the use of secondary data (as in Chapters 3 – 7) has several strengths; in the case of the NESARC III, a particularly large dataset, it can be subjected to very advanced and powerful statistical analysis. As previously discussed, the NESARC III data is secondary data, with a specific focus on alcohol and related conditions and as such, questions were not focused on victimisation experiences. Diagnosis of negative mental health outcomes within the NESARC III is in line with the criteria delineated in the DSM-5 and therefore does not account for diagnostic orphans or sub-clinical/sub-diagnostic symptomology within the population. Thus, the potential exists for the over- or under-estimation of the impact of any negative experience. Further, establishing temporal order in this cross-sectional data is problematic, that is, participants may have pre-existing mental health considerations that cannot be adjusted for. Of note, the NESARC III did not query victimisation characteristics such as the duration of any victimisation experience of the age of onset of any chronic experience. A further point worth consideration is that the assessment of physical wellbeing and interpersonal social support was conducted at the same time as the main study, it would be advantageous to assess both these factors using a longitudinal methodology to assess any fluidity in responses.

Given that the NESARC III is a secondary dataset, it must be noted that the variables within the dataset are pre-determined long before access is given for researchers to work with it. That said, it is then the responsibility of the researcher to assess each variable and make an informed choice as to which variable best represents the concept under investigation. For example, in this thesis receipt of food stamps was utilised as a proximal measure of low SES while many other measures were also available in order to consider only the most severely disadvantaged individuals within of the population. As with those who do not meet the diagnostic criteria for mental health disorders, this may mean that statistical orphans are present within the data.

Primary data collection for chapter 8, a Meaning Extraction Methods (MEM) study proved difficult and given the nature of the research this is not surprising. On-line recruitment may suffer from specific difficulties where male respondents are concerned. Several pilot studies could be initiated to assess the most productive and cost-effective process to obtain data for a similar study in future give the valuable insight this data could provide.

9.4 Main Findings and Wider Implications

Despite these limitations, the following subsections will consider the implications and support provision of interventions for male victims. A final consideration will examine gender equality in the discourse that surrounds the victimisation of boys and men.

9.4.1 Provision of interventions and support

While males are less likely than females to seek support (Galdas, Cheater & Marshall, 2005), Douglas and Hines (2011), showed that men do sometimes seek support for experiences of victimisation, indeed in their sample, male victims of IPV sought help from both formal and informal resources such as helplines and medical professionals as well as friends and family however, their experiences were not always positive ones. For example, one man gave his account of the experience of contacting a domestic violence helpline agency: "*They didn't really listen to what I said. They assumed that all abusers are men and said that I must accept that I was the abuser. They ridiculed me for not leaving my wife, ignoring the issues about what I would need to do to protect my 6 children and care for them*" (ibid, p9). This highlights a significant challenge for male victims of interpersonal poly-victimization, that of the gendered discourse that surrounds victimisation experiences and the resulting lack of sustained and appropriate support for male victims. Controversially, women have reported using physical violence in intimate relationships at similar or elevated rates compared to men (Archer, 2000). This is where victim support agencies and governmental policy must evolve to a more egalitarian methodology.

9.4.2 Equality and the Gender Discourse

Legislation such as the Violence against Women Act (VAWA) as outlined in Section 1.8, directs that this gendered discourse is adopted into mainstream legislation in the USA. As previously discussed, the title of the act references only females while the body of the act is gender neutral. There is no record of legislation for the protection of men, yet as seen in this thesis, experience of victimisation is not the sole possession of females. Indeed, recent European legislation, the '*Council of Europe Convention on preventing and combating violence against women and domestic violence'*, known as the Istanbul Convention (Council of Europe, 2017), designed to tackle the same domestic violence issues in Europe states; "*The implementation of the provisions of this Convention by the Parties, in particular measures to protect the rights of victims, shall be secured without discrimination on any ground such as sex, gender, race, colour, language, religion, political or other opinion, national or social origin, association with a national minority, property, birth, sexual orientation, gender identity, age, state of health, disability, marital status, migrant or refugee status, or other status*" (p. 8), supporting all victims in certain parts of the text while then gendering the issue in other parts, for example "*that women and girls are exposed to a higher risk of gender-based violence than men'* (p. 6). It is hard to comprehend how this can still be the state of the legislation worldwide given the evidence and supporting literature that has been outlined in this thesis.

A further example of this corrupted gendered discourse can be observed in the literature surrounding the #MeToo movement. One year on from news broke of

accusations being levied at Harvey Weinstein for sexual harassment and assault, the #MeToo movement has gathered momentum as dozens of women have come forward to disclose their experiences of sexual harassment and victimization from within the Hollywood film industry (Eisenberg & Baum, 2018). However, #MeToo has come under some criticism for its treatment of male victims and survivors. Brendan Frazer, star of the Mummy Franchise, came forward to recount his experience. An investigation by the Hollywood Foreign Press Association concluded that the assault was in fact an act carried out in jest (Klee, 2018). This is astounding, the #MeToo movement claims that victims should be believed, with a mantra "*I believe you*" (Crowley, 2018. para 1) yet here is a man, having made the brave step forward, is being told he just misunderstood the intentions of the perpetrator. It would be interesting to see what the public reaction would be if the victim in this case were a woman instead on a man. Further hypocrisy can be seen in the case of Asia Argento, an Italian actress and one of the first to come forward to disclose her experiences of sexual victimization as a victim of Weinstein, she has since been disgraced as it emerged she previously sexually assaulted a 17-year-old boy, to whom she paid $380,000 in damages. Indeed, she has gone on to attack the young man, claiming he is a liar (Flowers, 2018). This begs the question: do we believe victims only if they are women?

There are many inequalities in life however, healthcare and welfare should not be one of them; support for victims should not depend on their gender. This is a type of social injustice that is grounded in inaccurate stereotypes. In the United States, laws

exist to assist, compensate and protect victims (Waller, 2010), but within the judicial system, victims are not the priority.

9.4.4 Implications

Interpersonal poly-victimization across the life-course in males has not been a research priority (DeMay, 1994). The current findings strongly suggest that distinct profiles of poly-victimization exist within the male population. Further, these typologies are predictive of significant and devastating negative mental health outcomes. Indeed, the greater endorsement of interpersonal poly-victimization across the life-course, not just in childhood, the greater risk of psychopathology, in a dose response fashion.

Regarding clinical practice, this suggests that males who present at any clinical point of contact, for example their general practitioner or local mental health provision, with any interpersonal victimisation experience will have been or are likely to be exposed to multiple victimisation experiences. Thus, all victims, when presenting should be screened for poly-victimization experience across their life. Time and resources will need to be dedicated to the development of short and easily managed assessment instruments that will aid this, ensuring that the outcomes of such instruments not only aid the treatment and support of men, but ensuring that the expectations of male victims are managed appropriately.

Of note, 24% of the sample analysed in the current thesis endorsed poly-victimization in childhood and a small but disturbing 3.1% experienced a continuation of these experiences into their adult lives. Therefore, these men should also be screened for co-morbid psychopathologies so that targeted gender specific treatments are made available to support their individual needs. Doing so will ensure the correct treatment options and support are available to male victims.

In line with the current findings, it is pertinent that treatment options are researched to establish their specific benefit to male victims and that gender specific treatment options should be expanded to meet the needs of all victims. This is of importance, given that sexual assault and rape are the traumas most associated with PTSD in male victims (Zlotnick et al., 2006), and the life-course poly-victimised class exposed in Chapter 4 showed the highest endorsement of sexually abusive experiences both in childhood and adulthood.

Given the prevalence of interpersonal poly-victimization found in the male sub sample from the representative NESARC III data utilised in this thesis, and that victimisation and psychological disorders such as anxiety, depression and PTSD impact all areas of a person's life, the current thesis has investigated a very important and under-researched area. The evidence reported herein establishes a baseline for the prevalence and associated mental health outcomes of life-course poly-victimization in males and sets a standard for research to follow, that should expand the understanding of risk and resilience factors for men.

Legislation needs to adopt a more egalitarian vision, to be balanced and to ensure that the rights of men, women, children and any other population are protected. It is no longer acceptable to assume that men are always the perpetrators in any victimisation event however, more effort needs to be concentrated on the victims, rather than the gender of the perpetrator.

To summarise, this thesis has generated original and key findings that are worthy of further discussion and research. It is important to note that further research findings may vary across populations of men, for example in prison populations or military populations, and would be dependent on the robustness and methodological soundness of the research. As the first of its kind, this thesis must be viewed as exploratory in nature. As such, further research utilizing methodologies consistent with the current thesis will add to and build upon this new evidence base. Overall, establishing typologies of interpersonal poly-victimization across the life-course in males ensures that no standalone victimisation experience is over or under-estimated in its impact and will inevitably lead to more inclusive assessment and diagnostic tools, and to the development of gender specific treatment pathways, thus providing more efficient practices and better outcomes for male victims of interpersonal poly-victimization across the life-course.

9.5 Conclusion

Given the chronic and devastating nature of interpersonal poly-victimization across the life-course, an important next step in this area of research is to examine distinct populations of men, for example an understanding of the health of men who live in urban or industrialised areas, prison or military populations. Forging ahead, work to understand the underlying mechanisms that make the cumulative impact of poly-victimization so devastating to the mental health of male victims is imperative. Finally, work to provide robust and accessible gender specific treatment pathways and interventions that mitigate the impact of interpersonal poly-victimization experience of boys and men is of extreme importance.

This thesis begins that journey.

References

Agorastos, A., Pittman, J.O., Angkaw, A.C., Nievergelt, C.M., Hansen, C.J., Aversa, L.H., Parisi, S.A., Barkauskas, D.A., Baker, D.G. & Marine Resiliency Study Team. (2014). The cumulative effect of different childhood trauma types on self-reported symptoms of adult male depression and PTSD, substance abuse and health-related quality of life in a large active-duty military cohort. *Journal of Psychiatric Research*, *58*, 46-54. https://doi.org/10.1016/j.jpsychires.2014.07.014

Ablin, J., Fitzcharles, M. A., Buskila, D., Shir, Y., Sommer, C., & Häuser, W. (2013). Treatment of fibromyalgia syndrome: recommendations of recent evidence-based interdisciplinary guidelines with special emphasis on complementary and alternative therapies. *Evidence-Based Complementary and Alternative Medicine*.
http://dx.doi.org/10.1155/2013/485272

Afifi, T. O., MacMillan, H., Cox, B. J., Asmundson, G. J., Stein, M. B., & Sareen, J. (2009). Mental health correlates of intimate partner violence in marital relationships in a nationally representative sample of males and females. *Journal of Interpersonal Violence*, *24(*8), 1398-1417. https://doi.org/10.1177/0886260508322192

Ainsworth, M. S. (1989). Attachments beyond infancy. *American Psychologist*, *44*(4), 709. http://dx.doi.org/10.1037/0003-066X.44.4.709

Akaike, H. (1987). Factor analysis and AIC. *Psychometrika*, *52*, 317–332. https://doi.org/10.1007/978-1-4612-1694-0_29

Alaggia, R. (2005). Disclosing the trauma of child sexual abuse: A gender analysis. *Journal of Loss and Trauma*, *10*(5), 453-470. https://doi.org/10.1080/15325020500193895

Alaggia, R., & Millington, G. (2008). Male child sexual abuse: A phenomenology of betrayal. *Clinical Social Work Journal*, *36*(3), 265-275. https://doi.org/10.1007/s10615-007-0144-y

Alim, T. N., Feder, A., Graves, R. E., Wang, Y., Weaver, J., Westphal, M., ... & Mellman, T. A. (2008). Trauma, resilience, and recovery in a high-risk African-American population. *American Journal of Psychiatry*, *165*(12), 1566-1575. https://doi.org/10.1176/appi.ajp.2008.07121939

Allen, J. G. (2001). *Traumatic relationships and serious mental disorders*. England: John Wiley & Sons Ltd.

Altheide, D. L., Gray, B., Janisch, R., Korbin, L., Maratea, R., Neill, D., ... & Van Deman, F. (2001). News constructions of fear and victim: An exploration through triangulated qualitative document analysis. *Qualitative Inquiry*, *7*(3), 304-322. https://doi.org/10.1177/107780040100700304

AMEN (2018). *Support service for male victims of domestic violence in Ireland*. Retrieved from http://www.amen.ie/

American Psychiatric Association (APA, 2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. Washington, DC: Author.

American SPCC (2018, Feb 1) *American SPCC statistics from the 2016 data on child abuse and neglect known to child protection services.* Retrieved from: https://www.acf.hhs.gov/cb/resource/child-maltreatment-2018 https://www.acf.hhs.gov/cb/research-data-technology/statistics-research/child-maltreatment

Amstadter, A. B., & Vernon, L. L. (2008). Emotional reactions during and after trauma: A comparison of trauma types. *Journal of Aggression, Maltreatment & Trauma, 16*(4), 391-408. https://doi.org/10.1080/10926770801926492

Andersen, B. L., Cyranowski, J. M., & Espindle, D. (1999). Men's sexual self-schema. *Journal of Personality and Social Psychology*, *76*(4), 645. http://dx.doi.org/10.1037/0022-3514.76.4.645

Andrews, B. (1995). Bodily shame as a mediator between abusive experiences and depression. *Journal of Abnormal Psychology*, *104*, 277 –285.

Andrews, B. (1998). *Methodological and definitional issues in shame research*. In P . Gilbert & B. Andrews (Eds.), Shame: Interpersonal behaviour, psychopathology, and culture (pp. 39 – 54). New York: Oxford University Press.

Appleyard, K., Egeland, B., van Dulmen, M. H., & Sroufe, L. A. (2005). When more is not better: The role of cumulative risk in child behavior outcomes. *Journal of Child Psychology and Psychiatry*, *46*(3), 235-245. https://doi.org/10.1111/j.1469-7610.2004.00351.x

Archer, J. (2000). Sex differences in aggression between heterosexual partners: a meta-analytic review. *Psychological Bulletin*, *126*(5), 651.

Arias, I., Leeb, R. T., Melanson, C., Paulozzi, L. J., & Simon, T. R. (2008). Child maltreatment surveillance; uniform definitions for public health and recommended data elements. Atlanta, Georgia: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Retrieved from https://stacks.cdc.gov/view/cdc/11493

Armour, C., & Sleath, E. (2014). Assessing the co-occurrence of intimate partner violence domains across the life-course: Relating typologies to mental

health. *European Journal of Psychotraumatology*, *5*(1), 24620. https://doi.org/10.3402/ejpt.v5.24620

Armour, C., Elhai, J. D., Layne, C. M., Shevlin, M., Duraković-Belko, E., Djapo, N., & Pynoos, R. S. (2011). Gender differences in the factor structure of posttraumatic stress disorder symptoms in war-exposed adolescents. *Journal of Anxiety Disorders*, *25*(4), 604-611. https://doi.org/10.1016/j.janxdis.2011.01.010

Armour, C., Elklit, A., & Christoffersen, M. N. (2014). A latent class analysis of childhood maltreatment: Identifying abuse typologies. *Journal of Loss and Trauma, 19*(1), 23-39. https://doi.org/10.1080/15325024.2012.734205

Armour, C., Karstoft, K. I., & Richardson, J. D. (2014). The co-occurrence of PTSD and dissociation: differentiating severe PTSD from dissociative-PTSD. *Social Psychiatry and Psychiatric Epidemiology, 49*(8), 1297-1306. https://doi.org/10.1007/s00127-014-0819-y

Armour, C., Shevlin, M., Elklit, A., & Mroczek, D. (2012). A latent growth mixture modeling approach to PTSD symptoms in rape victims. *Traumatology*, *18*(1), 20-28. https://doi.org/10.1177/1534765610395627

Arriola, K. R., Louden, T., Doldren, M. A., & Fortenberry, R. M. (2005). A meta-analysis of the relationship of child sexual abuse to HIV risk behavior among women. *Child Abuse & Neglect*, *29*(6), 725-746. https://doi.org/10.1016/j.chiabu.2004.10.014

Aust, S., Härtwig, E. A., Heuser, I., & Bajbouj, M. (2013). The role of early emotional neglect in alexithymia. *Psychological Trauma: Theory, Research, Practice, and Policy, 5*(3), 225. DOI: 10.1037/a0027314

Baker, C. R., & Stith, S. M. (2008). Factors predicting dating violence perpetration among male and female college students. *Journal of Aggression, Maltreatment, and Trauma, 17*(2), 227– 244. doi: 10.1080/ 10926770802344836

Bandura, A. (1971). *Psychotherapy based upon modeling principles. Handbook of Psychotherapy and Behavior Change.* New York: Wiley, 653, 708.

Banyard, V. L., Williams, L. M., & Siegel, J. A. (2004). Childhood sexual abuse: A gender perspective on context and consequences. *Child Maltreatment*, *9*(3), 223-238. https://doi.org/10.1177/107755904266914

Bargh, J. A., & Tota, M. E. (1988). Context-dependent automatic processing in depression: Accessibility of negative constructs with regard to self but not others. *Journal of Personality and Social Psychology, 54*(6), 925.

Barth, J., Bermetz, L., Heim, E., Trelle, S., & Tonia, T. (2013). The current prevalence of child sexual abuse worldwide: a systematic review and meta-analysis. *International Journal of Public Health*, *58*(3), 469-483. DOI 10.1007/s00038-012-0426-1

Barnett, O., Miller-Perrin, C. L., & Perrin, R. D. (2005). *Family violence across the lifespan.* Thousand Oaks, CA: Sage.

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173. DOI: 10.1037//0022-3514.51.6.1173

Barrera, M. (1986). Distinctions between social support concepts, measures, and models. *American Journal of Community Psychology*, *14*(4), 413-445. https://doi.org/10.1007/BF00922627

Barrera, M., Sandler, I. N., & Ramsay, T. B. (1981). Preliminary development of a scale of social support: Studies on college students. *American Journal of Community Psychology, 9(*4), 435-447.

Barsky, A. J., Peekna, H. M., & Borus, J. F. (2001). Somatic symptom reporting in women and men. *Journal of General Internal Medicine, 16*(4), 266-275. https://doi.org/10.1046/j.1525-1497.2001.016004266.x

Bartlett, J. D., Kotake, C., Fauth, R., & Easterbrooks, M. A. (2017). Intergenerational transmission of child abuse and neglect: do maltreatment type, perpetrator, and substantiation status matter? *Child Abuse & Neglect, 63*, 84-94. https://doi.org/10.1016/j.chiabu.2016.11.021

Basile, K. C., & Saltzman, L. E. (2002). *Sexual violence surveillance: Uniform definitions and recommended data elements*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Retrieved from https://calio.dspacedirect.org/handle/11212/2310

Bauer, D. J., & Curran, P. J. (2005). Probing interactions in fixed and multilevel regression: Inferential and graphical techniques. *Multivariate Behavioral Research*, *40*(3), 373-400. https://doi.org/10.1207/s15327906mbr4003_5

Bell, K. M., & Naugle, A. E. (2008). Intimate partner violence theoretical considerations: Moving towards a contextual framework. *Clinical Psychology Review, 28*(7), 1096-1107. https://doi.org/10.1016/j.cpr.2008.03.003

Bergner, R. M., Delgado, L. K., & Graybill, D. (1994). Finkelhor's risk factor checklist: a cross-validation study. *Child Abuse & Neglect, 18*(4), 331-340. https://doi.org/10.1016/0145-2134(94)90035-3

Berkman, L. F. (1984). Assessing the physical health effects of social networks and social support. *Annual Review of Public Health, 5*(1), 413-432. doi:10.1146/annurev.pu.05.050184.002213

Berkman, L. F., Glass, T., Brissette, I., & Seeman, T. E. (2000). From social integration to health: Durkheim in the new millennium☆. *Social Science & Medicine, 51*(6), 843-857. https://doi.org/10.1016/S0277-9536(00)00065-4

Berzenski, S. R., & Yates, T. M. (2011). Classes and consequences of multiple maltreatment: A person-centered analysis. *Child Maltreatment, 16*(4), 250-261. https://doi.org/10.1177/1077559511428353

Bieneck, S.; Krahe, B. (2010). "Blaming the Victim and Exonerating the Perpetrator in Cases of Rape and Robbery: Is There a Double Standard?". *Journal of Interpersonal Violence. 26* (9): 1785–97. doi:10.1177/0886260510372945.

Black, D. A., Heyman, R. E., & Slep, A. M. S. (2001). Risk factors for child sexual abuse. *Aggression and Violent Behavior*, 6(2-3), 203-229. https://doi.org/10.1016/S1359-1789(00)00021-5

Bollen, K.A. (1989). *Structural equations with latent variables*. New York, NY: John Wiley and Sons.

Bowlby, J. (1969). *Attachment and Loss: Attachment; John Bowlby*. New York; Basic books.

Bowlby, J. (1973). *Attachment and loss: volume 2. Separation*. New York: Basic Books

Bowlby, J. (1980). *Attachment and loss: Vol. III.: Loss, sadness and depression*. New York: Basic Books

Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry, 52*(4), 664. https://doi.org/10.1111/j.1939-0025.1982.tb01456.x

Bowlby, J. (1988). Developmental psychiatry comes of age. *The American Journal of Psychiatry*, *145*(1), 1. DOI: 10.1176/ajp.145.1.1

Box, S. (2002). *Power, Crime and Mystification*. New York: Routledge.

Boyd, R. L. (2017). Psychological text analysis in the digital humanities. In *Data Analytics in Digital Humanities* (pp. 161-189). Springer, Cham.

Boyd, R. L. (2018). *MEH: Meaning Extraction Helper (Version 2.1.05)* [Software]. Available from https://meh.ryanb.cc

Breiding, M. J., Basile, K. C., Smith, S. G., Black, M. C., Mahendra, R. R. (2015). *Intimate Partner Violence Surveillance: Uniform Definitions and Recommended Data Elements, Version 2.0.* Atlanta (GA): National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Retrieved from https://stacks.cdc.gov/view/cdc/31292

Breslau, N. (2009). The epidemiology of trauma, PTSD, and other posttrauma disorders. *Trauma, Violence, & Abuse, 10*(3), 198-210. https://doi.org/10.1177/1524838009334448

Brewer, R., Cook, R., & Bird, G. (2016). Alexithymia: a general deficit of interoception. *Royal Society Open Science, 3*(10), 150664. https://doi.org/10.1098/rsos.150664

Briere, J., & Scott, C. (2015). Complex trauma in adolescents and adults: effects and treatment. *Psychiatric Clinics of North America, 38*(3), 515-527. https://doi.org/10.1016/j.psc.2015.05.004

Brinker, J., & Cheruvu, V. K. (2017). Social and emotional support as a protective factor against current depression among individuals with adverse childhood experiences. *Preventive Medicine Reports, 5*, 127-133. https://doi.org/10.1016/j.pmedr.2016.11.018

Bronfenbrenner, U. (1979). *The ecology of human development*. Harvard: University Press.

Brown, G. A. (2004). Gender as a factor in the response of the law-enforcement system to violence against partners. *Sexuality and Culture, 8*(3-4), 3-139. https://doi.org/10.1007/s12119-004-1000-7

Browne, A., & Finkelhor, D. (1986). Impact of child sexual abuse: A review of the research. *Psychological Bulletin*, *99*(1), 66. DOI: 10.1037/0033-2909.99.1.66

Bryant, S. L., & Range, L. M. (1995). Suicidality in college women who were sexually and physically abused and physically punished by parents. *Violence and Victims, 10*, 195–201. DOI:10.1891/0886-6708.10.3.195

Bumiller, K. (2009). *In an abusive state: How neoliberalism appropriated the feminist movement against sexual violence.* Duke University Press.

Burnes, D., Pillemer, K., Caccamise, P. L., Mason, A., Henderson, C. R., Berman, J. Cook, A.M., Shukoff, D., Brownell, P., Powell, M., Salamone, A. (2015).

Prevalence of and risk factors for elder abuse and neglect in the community: a population-based study. *Journal of the American Geriatrics Society, 63*(9), 1906-1912. https://doi.org/10.1111/jgs.13601

Burnett-Zeigler, I., Bohnert, K. M., & Ilgen, M. A. (2013). Ethnic identity, acculturation and the prevalence of lifetime psychiatric disorders among Black, Hispanic, and Asian adults in the US. *Journal of Psychiatric Research*, *47*(1), 56-63. https://doi.org/10.1016/j.jpsychires.2012.08.029

Burns, C. R., Lagdon, S., Boyda, D., & Armour, C. (2016). Interpersonal polyvictimization and mental health in males. *Journal of Anxiety Disorders, 40*, 75-82. https://doi.org/10.1016/j.janxdis.2016.04.002

Butchart, A., Phinney Harvey, A., Mian, M., Furniss, T., Kahane, T., & World Health Organization. (2006). *Preventing child maltreatment: a guide to taking action and generating evidence.* Retrieved from http://apps.who.int/iris/bitstream/handle/10665/43499/9241594365_eng.pdf;jsessionid=065885A6DFCCE964052778302F3189F8?sequence=1

Caldera, Y. M., & Lindsey, E. W. (2006). Co-parenting, mother-infant interaction, and infant-parent attachment relationships in two-parent families. *Journal of Family Psychology*, *20*(2), 275. DOI: 10.1037/0893-3200.20.2.275

Cantón-Cortés, D., Cortés, M. R., & Cantón, J. (2012). The role of traumagenic dynamics on the psychological adjustment of survivors of child sexual abuse. *European Journal of Developmental Psychology*, *9*(6), 665-680. https://doi.org/10.1080/17405629.2012.660789

Capaldi, D. M., Kim, H. K., & Shortt, J. W. (2004). Women's Involvement in Aggression in Young Adult Romantic Relationships: A Developmental Systems Model. In M. Putallaz & K. L. Bierman (Eds.), *Duke series in child development and public policy. Aggression, antisocial behavior, and violence among girls: A developmental perspective* (pp. 223-241). New York, NY, US: Guilford Publications

Cash, T. F. (2012). Cognitive-behavioral perspectives on body image. In *Encyclopedia of body image and human appearance* (pp. 334-342).

Caslini, M., Bartoli, F., Crocamo, C., Dakanalis, A., Clerici, M., & Carrà, G. (2016). Disentangling the association between child abuse and eating disorders: a systematic review and meta-analysis. *Psychosomatic Medicine, 78*(1), 79-90. doi: 10.1097/PSY.0000000000000233

Cassel, J. (1974a). An epidemiological perspective of psychosocial factors in disease etiology. *American Journal of Public Health, 64*(11), 1040-1043.

Cassel, J. (1974b). Psychosocial processes and "stress": Theoretical formulation. International *Journal of Health Services, 4*(3), 471-482.

Cassidy, T., McLaughlin, M., & McDowell, E. (2014). Bullying and health at work: The mediating roles of psychological capital and social support. *Work & Stress, 28*(3), 255-269. https://doi.org/10.1080/02678373.2014.927020

Castelli, W. P., Garrison, R. J., Wilson, P. W., Abbott, R. D., Kalousdian, S., & Kannel, W. B. (1986). Incidence of coronary heart disease and lipoprotein cholesterol levels: the Framingham Study. *Jama, 256*(20), 2835-2838. DOI: 10.1001/jama.1986.03380200073024

Catani, C., Schauer, E., & Neuner, F. (2008). Beyond individual war trauma: domestic violence against children in Afghanistan and Sri Lanka. *Journal of Marital and Family Therapy*, *34*(2), 165-176. https://doi.org/10.1111/j.1752-0606.2008.00062.x

Cavanagh, C. E., Martins, S., Petras, H., & Campbell, J.C. (2013) Mental Disorders Associated with Subpopulations if Women Affected by Violence and Abuse. *Journal of Traumatic Stress, 26,* 459-466. https://doi.org/10.1002/jts.21821

Centre for Disease Control and Prevention (CDC, 2015), *National Health Interview Survey.* Retrieved from https://www.cdc.gov/nchs/fastats/mens-health.htm

Cercone, J. J., Beach, S. R. H., & Arias, I. (2005). Gender symmetry in dating intimate partner violence: Does similar behavior imply similar constructs? *Violence and Victims, 20*(2), 207– 218. DOI:10.1891/088667005780905614

Chen, L. P., Murad, M. H., Paras, M. L., Colbenson, K. M., Sattler, A. L., Goranson, E. N., ... & Zirakzadeh, A. (2010). Sexual abuse and lifetime diagnosis of psychiatric disorders: systematic review and meta-analysis. *Mayo Clinic Proceedings* (Vol. 85, No. 7, pp. 618-629). https://doi.org/10.4065/mcp.2009.0583

Child Maltreatment 2016 (2018). *American SPCC, Child Abuse Statistics in the U.S.* Retrieved from https://americanspcc.org/child-abuse-statistics/

Child Trends, 2014 (2015). *Child trends calculations from U. S. Bureau of Justice Statistics.* Retrieved from https://www.childtrends.org/indicators/violent-crime-victimization

Child Welfare Information Gateway. (2017). *Foster care statistics 2016.* Washington, DC: U.S. Department of Health and Human Services,

Children's Bureau. Retrieved from https://www.childwelfare.gov/pubPDFs/foster.pdf

Christoffersen, M. N., Armour, C., Lasgaard, M., Andersen, T. E., & Elklit, A. (2013). The prevalence of four types of childhood maltreatment in Denmark. *Clinical Practice and Epidemiology in Mental Health:* 9, 149. doi: 10.2174/1745017901309010149

Chung, C. K., & Pennebaker, J. W. (2008). Revealing dimensions of thinking in open-ended self-descriptions: An automated meaning extraction method for natural language. *Journal of Research in Personality*, *42*(1), 96-132. https://doi.org/10.1016/j.jrp.2007.04.006

Chung, C.K., & Pennebaker, J. W. (2007). The psychological functions of function words. *Social Communication*, *1*, 343-359.

Classen, C. C., Palesh, O. G., & Aggarwal, R. (2005). Sexual revictimization: A review of the empirical literature. *Trauma, Violence, & Abuse*, *6*(2), 103-129. https://doi.org/10.1177/1524838005275087

Clatworthy, J., Hinds, J., & M. Camic, P. (2013). Gardening as a mental health intervention: a review. *Mental Health Review Journal, 18*(4), 214-225. https://doi.org/10.1108/MHRJ-02-2013-0007

Cloitre, M., Garvert, D. W., Brewin, C. R., Bryant, R. A., & Maercker, A. (2013). Evidence for proposed ICD-11 PTSD and complex PTSD: A latent profile analysis. *European journal of Psychotraumatology*, *4*(1), 20706. https://doi.org/10.3402/ejpt.v4i0.20706

Coastal Carolina University, (CCU, 2008). *Campus Assault Recourse Education Support (CARES) Coalition.* Retrieved from https://www.dailydot.com/irl/anti-rape-poster-reddit-conversations/

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine, 38*(5), 300-314. http://dx.doi.org/10.1097/00006842-197609000-00003

Cocker, C., & Scott, S. (2006). Improving the mental and emotional well-being of looked after children: connecting research, policy and practice. *The Journal of the Royal Society for the Promotion of Health, 126*(1), 18-23. https://doi.org/10.1177/1466424006061169

Coffey, P., Leitenberg, H., Henning, K., Turner, T., & Bennett, R. T. (1996). Mediators of the long-term impact of child sexual abuse: Perceived stigma, betrayal, powerlessness, and self-blame. *Child Abuse & Neglect*, *20*(5), 447-455. https://doi.org/10.1016/0145-2134(96)00019-1

Coghill, D., Bonnar, S., Seth, S., Duke, S., & Graham, J. (2009). *Child and adolescent psychiatry*. Oxford University Press, USA.

Cohen, C. (2014). *Male rape is a feminist issue: Feminism, governmentality and male rape*. Hampshire: Palgrave Macmillan.

Cohen, S., & Hoberman, H. M. (1983). Positive events and social supports as buffers of life change stress1. *Journal of Applied Social Psychology*, *13*(2), 99-125. https://doi.org/10.1111/j.1559-1816.1983.tb02325.x

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310.

Cohen, S., Mermelstein, R., Kamarck, T., & Hoberman, H. M. (1985). Measuring the functional components of social support. *In Social support: Theory, Research and Applications* (pp. 73-94). Springer, Dordrecht. https://doi.org/10.1007/978-94-009-5115-0_5

Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M., & Smith, P. H. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine, 23*(4), 260-268. https://doi.org/10.1016/S0749-3797(02)00514-7

Collishaw, S., Pickles, A., Messer, J., Rutter, M., Shearer, C., & Maughan, B. (2007). Resilience to adult psychopathology following childhood maltreatment: Evidence from a community sample. *Child Abuse & Neglect, 31*(3), 211-229. https://doi.org/10.1016/j.chiabu.2007.02.004

Connell, R. W., & Messerschmidt, J. W. (2005). Hegemonic masculinity: Rethinking the concept. *Gender & Society*, *19*(6), 829-859. https://doi.org/10.1177/0891243205278639

Cook, G. (1997). Schemas. *English Language Teaching Journal*, *51*(1), 86-86.

Cooney, G. M., Dwan, K., Greig, C. A., Lawlor, D. A., Rimer, J., Waugh, F. R., ... & Mead, G. E. (2013). Exercise for depression. *Cochrane Database of Systematic Reviews*, (9). https://doi.org/10.1111/jebm.12076

Council of Europe (2017). *Istanbul Convention: Action Against Violence Against Women and Domestic Violence*. Retrieved from https://www.coe.int/en/web/istanbul-convention/home

Cox, Holmes Moloney, Priest & Ridley-Dash, 2013 In Cromby, J., Harper, D., & Reavey, P. (2013). *Psychology, mental health and distress.* Macmillan International Higher Education.

Coxell, A.W. and King, M.B. (1996). Male victims of rape and sexual abuse. *Sexual and Marital Therapy, 11,* 297-308. https://doi.org/10.1080/02674659608404443

Coyne, J. C., & Downey, G. (1991). Social factors and psychopathology: Stress, social support, and coping processes. *Annual Review of Psychology, 42*(1), 401-425. https://doi.org/10.1146/annurev.ps.42.020191.002153

Crastnopol, M. (2015). *Micro-trauma: A Psychoanalytic Understanding of Cumulative Psychic Injury (Vol. 25).* Routledge.

Crowley, P. (2018) *FLETCHER Shares #MeToo- Inspired Track 'I Believe You' With Poignant Open Letter: 'I'm Listening, We All Are'*. Retrieved from https://www.billboard.com/articles/news/8236612/fletcher-new-song-i-believe-you-me-too-open-letter

Cuevas, C. A., & Rennison, C. M. (2016). *The Wiley handbook on the psychology of violence.* England, UK: John Wiley & Sons.

Cuevas, C. A., Finkelhor, D., Clifford, C., Ormrod, R. K., & Turner, H. A. (2010). Psychological distress as a risk factor for re-victimization in children. *Child Abuse & Neglect, 34*(4), 235-243. https://doi.org/10.1016/j.chiabu.2009.07.004

Daigle, L. E., Scherer, H., Fisher, B. S., & Azimi, A. (2016). *Intimate partner violence among college students: Measurement, risk factors, consequences, and responses*. . In Cuevas, C.A. & Rennison, C.A. (Ed.), *The Wiley handbook on the psychology of violence*. (pp. 371-395). England, UK: John Wiley & Sons.

Daley, E. M., & Noland, V. J. (2001). Intimate partner violence in college students: A cross-cultural comparison. *The International Electronic Journal of Health Education, 4*, 35– 40.

Dargis, M., & Koenigs, M. (2017). Witnessing domestic violence during childhood is associated with psychopathic traits in adult male criminal offenders. *Law and Human Behavior, 41*(2), 173. DOI: 10.1037/lhb0000226

Davies, P. T., & Lindsay, L. L. (2004). Interparental conflict and adolescent adjustment: Why does gender moderate early adolescent vulnerability? *Journal of Family Psychology, 18*(1), 160. DOI: 10.1037/0893-3200.18.1.160

Davis, C., Kennedy, S.H., Ravelski, E. & Dionne, M. (1994). The role of physical activity in the development and maintenance of eating disorders. *Psychological Medicine, 24*,957-967. https://doi.org/10.1017/S0033291700029044

DeLara, E. W. (2012). Why adolescents don't disclose incidents of bullying and harassment. *Journal of School Violence, 11*(4), 288-305. https://doi.org/10.1080/15388220.2012.705931

DeLisi, M., Caropreso, D. E., Drury, A. J., Elbert, M. J., Evans, J. L., Heinrichs, T., & Tahja, K. M. (2016). The dark figure of sexual offending: new evidence from federal sex offenders. *Journal of Criminal Psychology, 6*(1), 3-15. https://doi.org/10.1108/JCP-12-2015-0030

Demyttenaere, K., Bruffaerts, R., Lee, S., Posada-Villa, J., Kovess, V., Angermeyer, M. C., ... & Lara, C. (2007). Mental disorders among persons with chronic back or neck pain: results from the World Mental Health Surveys. *Pain, 129*(3), 332-342. https://doi.org/10.1016/j.pain.2007.01.022

Dennis, O. (2011) *Understanding Male Sexual Abuse, Why Male Victims Remain Silent.* Bloomington, USA: iUniverse Books.

Dhingra, K., Boduszek, D., & Sharratt, K. (2015). Victimization Profiles, Non-Suicidal Self-Injury, Suicide Attempt, and Post-Traumatic Stress Disorder Symptomology Application of Latent Class Analysis. *Journal of Interpersonal Violence 31*(14), 2412-2429. https://doi.org/10.1177/0886260515576967

Dictionary.com (2018). Retrieved from https://www.dictionary.com/browse/victim

DiStefano, C., & Kamphaus, R. W. (2006). Investigating subtypes of child development: A comparison of cluster analysis and latent class cluster analysis in typology creation. *Educational and Psychological Measurement, 66,* 778–794. https://doi.org/10.1177/0013164405284033

Dodge, K. A., & Coie, J. D. (1987). Social-information-processing factors in reactive and proactive aggression in children's peer groups. *Journal of Personality and Social Psychology, 53*(6), 1146.

Doll, L. S., Joy, D., Bartholow, B. N., Harrison, J. S., Bolan, G., Douglas, J. M., ... & Delgado, W. (1992). Self-reported childhood and adolescent sexual abuse among adult homosexual and bisexual men. *Child Abuse & Neglect, 16*(6), 855-864. https://doi.org/10.1016/0145-2134(92)90087-8

Dolliver, J. M. (1987). Victims' rights constitutional amendment: A bad idea whose time should not come. *Wayne Law Review*, *34*(1), 87. Retrieved from https://heinonline.org/HOL/LandingPage?handle=hein.journals/waynlr34&div=13&id=&page=

Dominik, W. J. (Ed.). (2002). *Words and Ideas*. Illinois: Bolchazy-Carducci Publishers.

Dorahy, M. J., Corry, M., Shannon, M., Webb, K., McDermott, B., Ryan, M., & Dyer, K. F. (2013). Complex trauma and intimate relationships: The impact of shame, guilt and dissociation. *Journal of Affective Disorders*, *147*(1-3), 72-79. https://doi.org/10.1016/j.jad.2012.10.010

Douglas, E. M., & Hines, D. A. (2011). The helpseeking experiences of men who sustain intimate partner violence: An overlooked population and implications for practice. *Journal of Family Violence, 26*(6), 473-485. DOI:10.1007/s10896-011-9382-4

Drake, B., & Pandey, S. (1996). Understanding the relationship between neighborhood poverty and specific types of child maltreatment. *Child Abuse & Neglect, 20*(11), 1003-1018. https://doi.org/10.1016/0145-2134(96)00091-9

Drakulich, K. M. (2015). Strangers, acquaintances, and victims: victimization and concern about crime among women. *Sociological Forum, 30*(1), 103-126. https://doi.org/10.1111/socf.12147

Dube, S. R., Anda, R. F., Felitti, V. J., Edwards, V. J., & Williamson, D. F. (2002). Exposure to abuse, neglect, and household dysfunction among adults who witnessed intimate partner violence as children: implications for health and social services. *Violence and Victims, 17*(1), 3-18. https://doi.org/10.1111/socf.12147

Dunn, A. L., Garcia, M. E., Marcus, B. H., Kampert, J. B., Kohl, H. W., & Blair, S. N. (1998). Six-month physical activity and fitness changes in Project Active, a randomized trial. *Medicine and Science in Sports and Exercise, 30*(7), 1076-1083. DOI: 10.1097/00005768-199807000-00009

Durant, R., Champion, H., Wolfson, M., Omli, M., McCoy, T., D'Agostino, R. B… . Mitra, A. (2007). Date fighting experiences among college students: Are they associated with other health risk behaviors? *Journal of American College Health, 55*(5), 291– 296. https://doi.org/10.3200/JACH.55.5.291-299

Dutton, M. A., Green, B. L., Kaltman, S. I., Roesch, D. M., Zeffiro, T. A., & Krause, E. D. (2006). Intimate partner violence, PTSD, and adverse health outcomes. *Journal of Interpersonal Violence, 21*(7), 955-968. https://doi.org/10.1177/0886260506289178

Eisenberg, D. & Baum, E. (2018) *#MeToo: Hollywood Sexual Harassment Scandal Takes Social Media By Storm*. Retrieved from https://www.eandblaw.com/employment-discrimination-

blog/2017/11/03/metoo-hollywood-sexual-harassment-scandal-social-media/

Epstein, R. A., Schlueter, D., Gracey, K. A., Chandrasekhar, R., & Cull, M. J. (2015). Examining placement disruption in child welfare. *Residential Treatment for Children & Youth, 32*(3), 224-232. https://doi.org/10.1080/0886571X.2015.1102484

Eysenck, M. W., & Keane, M. T. (2010). *Cognitive psychology–a student's handbook.* East Sussex: Psychology Press, 327-455.

Falandysz, L. (1982). Victimology in the radical perspective. In H.J. Schneider (Ed.). *The victim in international perspective* (pp. 105-114). New York: de Gruyter.

Farrington, D. P., & Welsh, B. C. (2008). *Saving children from a life of crime: Early risk factors and effective interventions.* Oxford University Press.

FBI UCR. (2014) *Frequently Asked Questions about the Change in the UCR Definition of Rape.* Retrieved from https://ucr.fbi.gov/recent-program-updates/new-rape-definition-frequently-asked-questions

Feiring, C., Simon, V. A., & Cleland, C. M. (2009). Childhood sexual abuse, stigmatization, internalizing symptoms, and the development of sexual difficulties and dating aggression. *Journal of Consulting and Clinical Psychology*, *77*(1), 127. DOI: 10.1037/a0013475

Feiring, C., Taska, L., & Lewis, M. (2002). Adjustment following sexual abuse discovery: The role of shame and attributional style. *Developmental Psychology*, *38*(1), 79. DOI: 10.1037//0012-1649.38.1.79

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Kross, M.P. & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine, 14*(4), 245-258. https://doi.org/10.1016/S0749-3797(98)00017-8

Fennell, M. J. (2005). *Low self-esteem*. In Felgoise, S., Nezu, A. M., Nezu, C. M., & Reinecke, M. A. (Eds.). (2006). *Encyclopedia of Cognitive Behavior Therapy*. (pp. 236-240). USA: Springer Science & Business Media Inc.

Fergusson, D. M., John Horwood, L., & Ridder, E. M. (2005). Show me the child at seven: the consequences of conduct problems in childhood for psychosocial functioning in adulthood. *Journal of Child Psychology and*

Psychiatry, 46(8), 837-849. https://doi.org/10.1111/j.1469-7610.2004.00387.x

Fergusson, D. M., McLeod, G. F., & Horwood, L. J. (2013). Childhood sexual abuse and adult developmental outcomes: Findings from a 30-year longitudinal study in New Zealand. *Child Abuse & Neglect*, *37*(9), 664-674. https://doi.org/10.1016/j.chiabu.2013.03.013

Fieldhouse, J. (2003). The impact of an allotment group on mental health clients' health, wellbeing and social networking. *British Journal of Occupational Therapy, 66*(7), 286-296. https://doi.org/10.1177/030802260306600702

FindLaw. (2019) Retrieved from https://criminal.findlaw.com/criminal-charges/assault-and-battery-overview.html

Finkel, E. J., & Eckhardt, C. I. (2013). Intimate partner violence. In J. A. Simpson & L. Campbell (Eds.), *Oxford library of psychology. The Oxford handbook of close relationships* (pp. 452-474). New York, NY, US: Oxford University Press

Finkelhor, D. (2010). *Sexually victimized children*. New York, NY: Simon & Schuster Inc.

Finkelhor, D., & Baron, L. (1986). Risk factors for child sexual abuse. *Journal of Interpersonal Violence, 1*(1), 43-71. https://doi.org/10.1177/088626086001001004

Finkelhor, D., & Browne, A. (1985). The traumatic impact of child sexual abuse: A conceptualization. *American Journal of Orthopsychiatry*, *55*(4), 530-541. https://doi.org/10.1111/j.1939-0025.1985.tb02703.x

Finkelhor, D., & Hotaling, G. T. (1984). Sexual abuse in the national incidence study of child abuse and neglect: An appraisal. *Child Abuse & Neglect, 8*(1), 23-32. https://doi.org/10.1016/0145-2134(84)90046-2

Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007). Poly-victimization: A neglected component in child victimization. *Child Abuse & Neglect, 31*(1), 7-26. https://doi.org/10.1016/j.chiabu.2006.06.008

Finkelhor, D., Turner, H., Hamby, S. And Ormrod, R., (2011). *Polyvictimization: Children's Exposure to Multiple Types of Violence, Crime, and Abuse*. Juvinlile Justice Bulliten. US Department of Justice. Retrieved from https://scholars.unh.edu/ccrc/25/

Fisher, B. S., Daigle, L. E., Cullen, F. T., & Turner, M. G. (2003). Acknowledging sexual victimization as rape: Results from a national-level study. *Justice Quarterly*, *20*(3), 535-574. https://doi.org/10.1080/07418820300095611

Fletcher, S., Elklit, A., Shevlin, M., & Armour, C. (2017). Predictors of PTSD treatment response trajectories in a sample of childhood sexual abuse survivors: the roles of social support, coping, and PTSD symptom clusters. *Journal of Interpersonal Violence*, https://doi.org/10.1177/0886260517741212

Flinn MV, Nepomnaschy PA, Muehlenbein MP, Ponzi D (June 2011). Evolutionary functions of early social modulation of hypothalamic–pituitary–adrenal axis development in humans. *Neuroscience and Biobehavioral Reviews. 35* (7): 1611–29. https://doi.org/10.1016/j.neubiorev.2011.01.005

Flowers, C.M. (2018) *It's time to bury the hypocritical #MeToo movement. If a man is the victim, tough*. Retrieved from https://www.miamiherald.com/opinion/op-ed/article217422065.html

Folkman, S., & Lazarus, R. S. (1990). Coping and emotion. *Psychological and Biological Approaches to Emotion*, 313-332. In Stein, N. L., Leventhal, B., & Trabasso, T. R. (Eds.). (2013). *Psychological and biological approaches to emotion*. Uk, Taylor & Francie Psychology Press.

Fonagy, P. (1997). Attachment and theory of mind: Overlapping constructs?. *Association for Child Psychology and Psychiatry Occasional Papers, 14*, 31-40.

Forbes, D., Fletcher, S., Phelps, A., Wade, D., Creamer, M., & O'Donnell, M. (2013). Impact of combat and non-military trauma exposure on symptom reduction following treatment for veterans with posttraumatic stress disorder. *Psychiatry Research, 206*(1), 33-36. https://doi.org/10.1016/j.psychres.2012.09.037

Force, R. T. T. (2005). *Mental Health Interventions for Refugee Children in Resettlement.* White Paper II, National Child Traumatic Stress Network. Retrieved from https://www.researchgate.net/profile/Theresa_Betancourt/publication/320386930_Mental_Health_Interventions_for_Refugee_Children_in_Resettlement_Refugee_Trauma_Task_Force_Introduction_and_Background/links/59e11a9f0f7e9b97fbe2b48a/Mental-Health-Interventions-for-Refugee-Children-in-Resettlement-Refugee-Trauma-Task-Force-Introduction-and-Background.pdf

Ford, J. D., Elhai, J. D., Connor, D. F., & Frueh, B. C. (2010). Poly-victimization and risk of posttraumatic, depressive, and substance use disorders and involvement in delinquency in a national sample of adolescents. *Journal of Adolescent Health, 46*(6), 545-552. https://doi.org/10.1016/j.jadohealth.2009.11.212

Forke, C. M., Myers, R. K., Catallozzi, M., & Schwarz, D. F. (2008). Relationship violence among female and male college undergraduate students. *Archives of Pediatrics and Adolescent Medicine, 162*(7), 634– 641. doi:10.1001/archpedi.162.7.634

Foshee, V. A., Bauman, K. E., & Linder, G. F. (1999). Family violence and the perpetration of adolescent dating violence: Examining social learning and social control processes. *Journal of Marriage and the Family, 61*, 331-342. DOI: 10.2307/353752

Foshee, V. A., Reyes, H. L. M., Vivolo-Kantor, A. M., Basile, K. C., Chang, L. Y., Faris, R., & Ennett, S. T. (2014). Bullying as a longitudinal predictor of adolescent dating violence. *Journal of Adolescent Health, 55*(3), 439-444. https://doi.org/10.1016/j.jadohealth.2014.03.004

Fossos, N., Neighbors, C., Kaysen, D., & Hove, C. (2007). Intimate partner violence perpetration and problem drinking among college students: The roles of expectancies and subjective evaluations of alcohol aggression. *Journal of Studies on Alcohol and Drugs, 68*(5), 706– 713. https://doi.org/10.15288/jsad.2007.68.706

Fox, K. A. and Cook, C. L. (2011). "Is Knowledge Power? The Effects of a Victimology Course on Victim Blaming". *Journal of Interpersonal Violence. 26,* 3407–3427. doi:10.1177/0886260511403752.

Franklin, R. (2013, April). VAWA must be reformed for domestic violence rates to come down. Retrieved from https://thehill.com/blogs/congress-blog/judicial/280897-vawa-must-be-reformed-for-domestic-violence-rates-to-come-down

Freeman, D., & Fowler, D. (2009). Routes to psychotic symptoms: trauma, anxiety and psychosis-like experiences. *Psychiatry Research, 169*(2), 107-112. https://doi.org/10.1016/j.psychres.2008.07.009

Freisthler, B., Merritt, D. H., & LaScala, E. A. (2006). Understanding the ecology of child maltreatment: A review of the literature and directions for future research. *Child Maltreatment*, *11*(3), 263-280. https://doi.org/10.1177/1077559506289524

Freyd, J. J. (1996). *Betrayal trauma: The logic of forgetting childhood abuse.* Cambridge, MA: Harvard University Press

Freyd, J. J. (1999). Blind to betrayal: New perspectives on memory for trauma. *The Harvard Mental Health Letter, 15(*12), 4-6. Retrieve from https://pages.uoregon.edu/dynamic/jjf/articles/freyd99.pdf

Freyd, J. J. (2001). Memory and dimensions of trauma: Terror may be ‘‘all-too-well remembered’’ and betrayal buried. In J. R. Conte (Ed.), *Critical issues in child sexual abuse: Historical, legal, and psychological perspectives* (pp. 139-173). Thousand Oaks, CA: Sage Publications

Friedman, M. J., Keane, T. M.,& Resick, P. A. (2007). *Handbook of PTSD: Science and practice*. New York: Guilford Press

Fromuth, M. E., & Burkhart, B. R. (1987). Childhood sexual victimization among college men: Definitional and methodological issues. *Violence and Victims, 2*(4), 241. DOI:10.1891/0886-6708.2.4.241

Gagnon, A. (2018). Extending social learning theory to explain victimization among gang and ex-gang offenders. *International Journal of Offender Therapy and Comparative Criminology.* https://doi.org/10.1177/0306624X18763761

Galdas PM, Cheater F, Marshall P. (2005). Men and health help-seeking behaviour: literature review. *Journal of Advanced Nursing. 49*(6),616–622. https://doi.org/10.1111/j.1365-2648.2004.03331.x

Gandek, B., Ware, J. E., Aaronson, N. K., Apolone, G., Bjorner, J. B., Brazier, J. E., ... & Sullivan, M. (1998). Cross-validation of item selection and scoring for the SF-12 Health Survey in nine countries: results from the IQOLA Project. *Journal of Clinical Epidemiology, 51(*11), 1171-1178. https://doi.org/10.1016/S0895-4356(98)00109-7

Gazelle H.; Ladd G. W. (2003). Anxious solitude and peer exclusion: A diathesis stress model of internalizing trajectories in childhood. *Child Development. 74*, 257–278. doi:10.1111/1467-8625.00634.

Gershon, A., Minor, K., & Hayward, C. (2008). Gender, victimization, and psychiatric outcomes. *Psychological Medicine, 38*(10), 1377-1391. https://doi.org/10.1017/S0033291708003000

Gilbert, R., Widom, C. S., Browne, K., Fergusson, D., Webb, E., & Janson, S. (2009). Burden and consequences of child maltreatment in high-income countries. *The Lancet*, *373*(9657), 68-81. https://doi.org/10.1016/S0140-6736(08)61706-7

Gilmore, D. D. (1990). *Manhood in the making: Cultural concepts of masculinity*. USA, Yale University Press.

Golding, B. (Ed.). (2015). *The Men's Shed Movement: The Company of Men*. Champaign, IL: Common Ground Publishing.

Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence*, *14*(2), 99-132. https://doi.org/10.1023/A:1022079418229

Goldsmith, R. E., Freyd, J. J., & DePrince, A. P. (2012). Betrayal trauma: Associations with psychological and physical symptoms in young adults. *Journal of Interpersonal Violence, 27*, 547–567. https://doi.org/10.1177/0886260511421672

Goodwin, R. D., Kroenke, K., Hoven, C. W., & Spitzer, R. L. (2003). Major depression, physical illness, and suicidal ideation in primary care. *Psychosomatic Medicine, 65*(4), 501-505. doi:10.1097/01.PSY.0000041544.14277.EC

Gottfredson, M. R. (1981). On the etiology of criminal victimization. *Journal of Criminal Law & Criminology*, *72*, 714. Retrieved from https://heinonline.org/HOL/LandingPage?handle=hein.journals/jclc72&div=32&id=&page=

Gould, J. W. (1998). *Conducting scientifically crafted child custody evaluations*. London, UK: Sage.

Graham, R. (2006). Male rape and the careful construction of the male victim. *Social & Legal Studies, 15*(2), 187-208. https://doi.org/10.1177/0964663906063571

Graham-Kevan, N., & Archer, J. (2005). Investigating three explanations of women's relationship aggression. *Psychology of Women Quarterly, 29*(3), 270-277. https://doi.org/10.1111/j.1471-6402.2005.00221.x

Grant BF, Amsbary M, Chu A (2014) *Source and Accuracy Statement: National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC-III*). Rockville, MD: National Institute on Alcohol Abuse and Alcoholism. Retrieved from https://www.niaaa.nih.gov/sites/default/files/NESARC_Final_Report_FINAL_1_8_15.pdf

Grant, B. F., & Dawson, D. A. (2006). Introduction to the national epidemiologic survey on alcohol and related conditions. *Alcohol Health & Research World, 29*(2), 74. Retrieved from https://pubs.niaaa.nih.gov/publications/arh29-2/74-78.pdf

Grant, B. F., Goldstein, R. B., Smith, S. M., Jung, J., Zhang, H., Chou, S. P., ... & Aivadyan, C. (2015). The Alcohol Use Disorder and Associated Disabilities Interview Schedule-5 (AUDADIS-5): reliability of substance use and psychiatric disorder modules in a general population sample. *Drug and*

Alcohol Dependence, 148, 27-33. https://doi.org/10.1016/j.drugalcdep.2014.11.026

Grant, B.F., Kaplan, K.D. (2005) *Source and accuracy statement for the Wave 2 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC).* Rockville, MD: National Institute on Alcohol Abuse and Alcoholism. Retrieved from https://pubs.niaaa.nih.gov/publications/arh29-2/121-130.htm

Gratz, K. L., Paulson, A., Jakupcak, M., & Tull, M. T. (2009). Exploring the relationship between childhood maltreatment and intimate partner abuse: Gender differences in the mediating role of emotion dysregulation. *Violence and Victims, 24*(1), 68– 82. doi: 10.1891/ 0886-6708.24.1.68

Gray, J. (1992). *Men are from Mars, women are from Venus: A practical guide for improving communication and getting what you want in a relationship.* New York, NY: Harper Collins.

Green, R., Collingwood, A., & Ross, A. (2010). *Characteristics of bullying victims in schools.* National Centre for Social Research, Department of Education. Retrieved from https://dera.ioe.ac.uk/121/1/DFE-RR001.pdf

Greenberger, E., O'Neil, R., & Nagel, S. K. (1994). Linking workplace and home place: Relations between the nature of adults' work and their parenting behaviors. *Developmental Psychology, 47*, 766–779. DOI: 10.1037/0012-1649.30.6.990

Greenwald, A. G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, *35*(7), 603.

Gregory, S., & Lees, S. (1999) *Investigating Sexual Assault.* London, UK: Sage

Griffin, S. (2015). *Rape: The politics of consciousness.* Open Road Media. Retrieved from https://books.google.co.uk/books?hl=en&lr=&id=V1HVCQAAQBAJ&oi=fnd&pg=PT5&dq=Griffin,+S.+(2015).+Rape:+The+politics+of+consciousness.+Open+Road+Media.&ots=0NaCiNExVl&sig=XJYuPsGQFXdwIs17xsv32YVmOL8#v=onepage&q=Griffin%2C%20S.%20(2015).%20Rape%3A%20The%20politics%20of%20consciousness.%20Open%20Road%20Media.&f=false

Gross, P. R., Levitt, N., & Lewis, M. W. (1996). The flight from science and reason. New York, NY: The New York Academy of Sciences.

Guttal, S. (2007). Globalisation. *Development in Practice, 17*(4/5), 523-531. Retrieved from http://www.jstor.org/stable/25548249

Hagenaars, J. A., & McCutcheon, A. L. (Eds.). (2002). *Applied latent class analysis.* Cambridge, England: Cambridge University Press.

Hall, S., Critcher, C., Jefferson, T., Clarke, J., & Roberts, B. (2013). *Policing the crisis: Mugging, the state and law and order*. UK, Macmillan International Higher Education.

Harlow, H. F., & Harlow, M. K. (1965). *The affectional systems. Behavior of Nonhuman Primates, 2*, 287-334. New York, Academic Press Inc.

Harned, M. S. (2001). Abused women or abused men? An examination of the context and outcomes of dating violence. *Violence and Victims, 16*(3), 269– 285. DOI: 10.1891/0886-6708.16.3.269

Hartescu, I., Morgan, K., & Stevinson, C. D. (2015). Increased physical activity improves sleep and mood outcomes in inactive people with insomnia: a randomized controlled trial. *Journal of Sleep Research, 24*(5), 526-534. https://doi.org/10.1111/jsr.12297

Harvey, D. (2007). Neoliberalism as creative destruction. *The Annals of the American Academy of Political and Social Science*, *610*(1), 21-44. https://doi.org/10.1177/0002716206296780

Harwin, N. (2006). Putting a stop to domestic violence in the United Kingdom challenges and opportunities. *Violence Against Women, 12*(6), 556-567. https://doi.org/10.1177/1077801206289134

Haugaard, J. J., & Emery, R. E. (1989). Methodological issues in child sexual abuse research. *Child Abuse & Neglect, 13*(1), 89-100. https://doi.org/10.1016/0145-2134(89)90032-X

Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication Monographs, 85*(1), 4-40. https://doi.org/10.1080/03637751.2017.1352100

Hazan, C., & Shaver, P. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*(3), 511. Retrieved from https://pdfs.semanticscholar.org/a7ed/78521d0d3a52b6ce532e89ce6ba185b355c3.pdf

Hendy, H. M., Weiner, K., Bakerofskie, J.,Eggen, D., Gustitus, C., & McLeod, K. C. (2003). Comparison of six models for violent romantic relationships in college men and women. *Journal of Interpersonal Violence, 18*, 645– 665. doi: 10.1177/ 0886260503251180

Higgins, D. J., & McCabe, M. P. (2001). Multiple forms of child abuse and neglect: Adult retrospective reports. *Aggression and Violent Behavior, 6*(6), 547-578. https://doi.org/10.1016/S1359-1789(00)00030-6

Hindelang, M. J., Gottfredson, M. R., & Garofalo, J. (1978). *Victims of personal crime: An empirical foundation for a theory of personal victimization*. Cambridge, MA: Ballinger.

Hine, B., & Murphy, A. (2017). The impact of victim-perpetrator relationship, reputation and initial point of resistance on officers' responsibility and authenticity ratings towards hypothetical rape cases. *Journal of Criminal Justice*, *49*, 1-13. https://doi.org/10.1016/j.jcrimjus.2017.01.001

Hines, D. A., & Douglas, E. M. (2009). Women's use of intimate partner violence against men: Prevalence, implications, and consequences. *Journal of Aggression, Maltreatment & Trauma, 18*(6), 572-586. https://doi.org/10.1080/10926770903103099

Hines, D. A., & Saudino, K. J. (2003). Gender differences in psychological, physical, and sexual aggression among college students using the revised conflict tactics scales. *Violence and Victims, 13*(2), 197– 217. doi: 10.1891/ vivi. 2003.18.2.197

Hines, D. A., Brown, J., & Dunning, E. (2007). Characteristics of callers to the domestic abuse helpline for men. *Journal of Family Violence*, *22*(2), 63-72. https://doi.org/10.1007/s10896-006-9052-0

Hirsch, B. J. (1981). *Social networks and the coping process: Creating personal communities.* Social networks and social support. Beverly Hills, CA: Sage Publications.

Hogg, M. A., & Vaughan, G. M. (2008). *Social Psychology*. Harlow, UK: Pearson Education.

Hoglund, C. L., & Nicholas, K. B. (1995). Shame, guilt, and anger in college students exposed to abusive family environments. *Journal of Family Violence*, *10*(2), 141-157. https://doi.org/10.1007/BF02110597

Hollway, W., & Jefferson, T. (2000). The role of anxiety in the fear of crime. *Crime, Risk and Insecurity*, 31-49. London: Routledge. In Hope, T., & Sparks, R. (2012). *Crime, risk and insecurity: law and order in everyday life and political discourse*. Oxon, UK; Routledge.

Holmes, J. (2014). *The search for the secure base: Attachment theory and psychotherapy*. London, UK: Routledge.

Holt, A. (2013). *Adolescent-to-parent abuse: current understandings in research, policy and practice*. Bristol, UK: Policy Press.

Holt, J. L., & Gillespie, W. (2008). Intergenerational transmission of violence, threatened egoism, and reciprocity: A test of multiple psychosocial factors affecting intimate partner violence. *American Journal of Criminal Justice, 33*(2), 252– 266. doi: 10.1007/ s12103-008-9036-0

Hornor, G. (2012). Emotional maltreatment. *Journal of Paediatric Health Care, 26,* 436–442. https://doi.org/10.1016/j.pedhc.2011.05.004

Horwitz, A. V., White, H. R., & Howell-White, S. (1996). Becoming married and mental health: A longitudinal study of a cohort of young adults. *Journal of Marriage and the Family*, 895-907. DOI: 10.2307/353978

House, J. S., Strecher, V., Metzner, H. L., & Robbins, C. A. (1986). Occupational stress and health among men and women in the Tecumseh Community Health Study. *Journal of health and social behavior*, 62-77. DOI: 10.2307/2136503

Howell, K. H., Cater, Å. K., Miller-Graff, L. E., Schwartz, L. E., & Graham-Bermann, S. A. (2017). The relationship between types of childhood victimisation and young adulthood criminality. *Criminal Behaviour and Mental Health, 27*(4), 341-353. https://doi.org/10.1002/cbm.2002

Ingram, R. E. & Luxton, D. D. (2005). *Vulnerability-Stress Models.* In B.L. Hankin & J. R. Z. Abela (Eds.), Development of Psychopathology: A vulnerability stress perspective (pp. 32-46). Thousand Oaks, CA: Sage Publications Inc.

Irish, L., Kobayashi, I., & Delahanty, D. L. (2009). Long-term physical health consequences of childhood sexual abuse: A meta-analytic review. *Journal of Pediatric Psychology*, *35*(5), 450-461. https://doi.org/10.1093/jpepsy/jsp118

Janoff-Bulman, R. (1989). Assumptive worlds and the stress of traumatic events: Applications of the schema construct. *Social Cognition, 7*(2), 113-136. https://doi.org/10.1521/soco.1989.7.2.113

Javaid, A. (2017). The unknown victims: hegemonic masculinity, masculinities, and male sexual victimisation. *Sociological Research Online*, *22*(1), 1-20. https://doi.org/10.5153/sro.4155

Jenness, J. L., & McLaughlin, K. A. (2015). Towards a person-centered approach to the developmental psychopathology of trauma. *Social Psychiatry and Psychiatric Epidemiology, 50*(8), 1219-1221. https://doi.org/10.1007/s00127-015-1095-1

Jensen, G. F., & Brownfield, D. (1986). Gender, lifestyles, and victimization: Beyond routine activity. *Violence and Victims, 1*(2), 85. DOI:10.1891/0886-6708.1.2.85

Johnson, R., Browne, K., & Hamilton-Giachritsis, C. (2006). Young children in institutional care at risk of harm. *Trauma, Violence, & Abuse*, *7*(1), 34-60. https://doi.org/10.1177/1524838005283696

Jolliffe, I. (2011). Principal component analysis. In *International encyclopedia of statistical science* (pp. 1094-1096). Springer, Berlin, Heidelberg.

Jones, A. (2000). Gendercide and genocide. *Journal of Genocide Research*, *2*(2), 185-211. https://doi.org/10.1080/713677599

Jose, P. E. (2013). *Doing statistical mediation and moderation*. New York, NY: Guilford Press.

Joseph, S., Williams, R., & Yule, W. (1997). *Understanding post-traumatic stress: A psychosocial perspective on PTSD and treatment*. Retrieved from https://neicj7hab09.storage.googleapis.com/EeAFzEuVY8mJjw7Hlc09.pdf

JourneyPure (2018). What's the difference between big "T" and little "t" trauma. Retrieved from https://journeypureriver.com/big-t-little-t-trauma/

Kajanoja, J., Scheinin, N. M., Karlsson, L., Karlsson, H., & Karukivi, M. (2017). Illuminating the clinical significance of alexithymia subtypes: a cluster analysis of alexithymic traits and psychiatric symptoms. *Journal of Psychosomatic Research*, 97, 111-117. https://doi.org/10.1016/j.jpsychores.2017.04.010

Kalmuss, D. (1984). The intergenerational transmission of marital aggression. *Journal of Marriage and the Family*, 11-19. DOI: 10.2307/351858

Kelly, L., Burton, S., & Regan, L. (1998). *Legacies of Abuse-" It's More Complicated Than That": A Qualitative Study of the Meaning and Impacts of Sexual Abuse in Childhood*. University of North London, Child and Woman Abuse Studies Unit. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.541.5287&rep=rep1&type=pdf

Kendall-Tackett, K. A., Williams, L. M., & Finkelhor, D. (1993). Impact of sexual abuse on children: a review and synthesis of recent empirical studies. *Psychological Bulletin*, *113*(1), 164. DOI: 10.1037/0033-2909.113.1.164

Kessler, R. C., Green, J. G., Gruber, M. J., Sampson, N. A., Bromet, E., Cuitan, M., ... & Lara, C. (2010). Screening for serious mental illness in the general population with the K6 screening scale: results from the WHO World

Mental Health (WMH) survey initiative. *International Journal of Methods in Psychiatric Research*, *19*(S1), 4-22. https://doi.org/10.1002/mpr.310

Kim, D. H., Lee, H. K., Kim, J. W., & Lee, K. (2012). Reliability and Validity of the Korean Version of Interpersonal Support Evaluation List-12 (ISEL-12*). Journal of Korean Neuropsychiatric Association, 51*(6), 416-421. https://doi.org/10.4306/jknpa.2012.51.6.416

Kjoesnes, R., Waal, H., Hauff, E., & Gossop, M. (2017). Severe trauma among substance users in opioid maintenance treatment: users' assessment of worst trauma and clinical assessment of PTSD. *Heroin Addiction & Related Clinical Problems,* 19(1): 5-12.

Klasen, F., Oettingen, G., Daniels, J., & Adam, H. (2010). Multiple trauma and mental health in former Ugandan child soldiers. *Journal of Traumatic Stress*, *23*(5), 573-581. https://doi.org/10.1002/jts.20557

Klohnen, E. C., & Bera, S. (1998). Behavioral and experiential patterns of avoidantly and securely attached women across adulthood: A 31-year longitudinal perspective. *Journal of Personality and Social Psychology*, *74*(1), 211. DOI: 10.1037//0022-3514.74.1.211

Korge, J., & Nunan, D. (2018). Higher participation in physical activity is associated with less use of inpatient mental health services: A cross-sectional study. *Psychiatry Research, 259,* 550-553. https://doi.org/10.1016/j.psychres.2017.11.030

Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology*, *55*(2), 162.

Kramer, A. D., & Chung, C. K. (2011, July). Dimensions of Self-Expression in Facebook Status Updates. In *ICWSM*. Proceedings of the Fifth International AAAI Conference on Weblogs and Social Media. California; AAAI Press

Kromrey, J. D., & Foster-Johnson, L. (1998). Mean centering in moderated multiple regression: Much ado about nothing. *Educational and Psychological Measurement, 58*(1), 42-67. https://doi.org/10.1177/0013164498058001005

Kuijpers, K. F., van der Knaap, L. M., & Winkel, F. W. (2012). Risk of revictimization of intimate partner violence: The role of attachment, anger and violent behavior of the victim. *Journal of Family Violence*, *27*(1), 33-44. https://doi.org/10.1007/s10896-011-9399-8

Lagdon, S., Armour, C., & Stringer, M. (2014). Adult experience of mental health outcomes as a result of intimate partner violence victimisation: a systematic review. *European Journal of Psychotraumatology, 5*(1), 24794. https://doi.org/10.3402/ejpt.v5.24794

Lamis, D. A., Wilson, C. K., King, N. M., & Kaslow, N. J. (2014). Child abuse, social support, and social functioning in African American children. *Journal of Family Violence, 29(*8), 881-891. https://doi.org/10.1007/s10896-014-9639-9

Lane, R. D., Hsu, C. H., Locke, D. E., Ritenbaugh, C., & Stonnington, C. M. (2015). Role of theory of mind in emotional awareness and alexithymia: Implications for conceptualization and measurement. *Consciousness and Cognition, 33*, 398-405. https://doi.org/10.1016/j.concog.2015.02.004

Laner, M. R., & Thompson, J. (1982). Abuse and aggression in courting couples. *Deviant Behavior*, *3*(3), 229-244. https://doi.org/10.1080/01639625.1982.9967588

Langford, C. P. H., Bowsher, J., Maloney, J. P., & Lillis, P. P. (1997). Social support: a conceptual analysis. *Journal of Advanced Nursing, 25*(1), 95-100. https://doi.org/10.1046/j.1365-2648.1997.1997025095.x

Latthe, P., Mignini, L., Gray, R., Hills, R., & Khan, K. (2006). Factors predisposing women to chronic pelvic pain: systematic review. *British Medical Journal, 332*(7544), 749-755. *doi: https://doi.org/10.1136/bmj.38748.697465.55*

Lauritsen, J. L., & Heimer, K. (2008). The gender gap in violent victimization, 1973–2004. *Journal of Quantitative Criminology*, *24*(2), 125-147. https://doi.org/10.1007/s10940-008-9041-y

Lauritsen, J.L & Laub, J.H. (2007). Understanding the link between victimization and offending: new reflections on an old idea. In: Hough, M. & Maxfield, M. (eds). *Surveying crime in the 21st century: commemorating the 25th anniversary of the British Crime Survey.* Mons; Criminal Justice Press.

Lawson, D. M. (2003). Incidence, explanations, and treatment of partner violence. *Journal of Counseling & Development*, *81*(1), 19-32. https://doi.org/10.1002/j.1556-6678.2003.tb00221.x

Le, M. T., Holton, S., Romero, L., & Fisher, J. (2018). Polyvictimization among children and adolescents in low-and lower-middle-income countries: a systematic review and meta-analysis. *Trauma, Violence, & Abuse, 19*(3), 323-342. https://doi.org/10.1177/1524838016659489

Leach, J. (2014). *Improving mental health through social support: building positive and empowering relationships*. Jessica Kingsley Publishers.

Lee, D. A., Scragg, P., & Turner, S. (2001). The role of shame and guilt in traumatic events: A clinical model of shame-based and guilt-based PTSD. *British Journal of Medical Psychology*, *74*(4), 451-466. https://doi.org/10.1348/000711201161109

Levant, R. F. (1995). Toward the reconstruction of masculinity. In R. F. Levant & W. S. Pollack (Eds.), *A new psychology of men* (pp. 229-251). New York, NY, US: Basic Books.

Levant, R. F. (1998). Desperately seeking language: Understanding, assessing, and treating normative male alexithymia. In W. S. Pollack & R. F. Levant (Eds.), New psychotherapy for men. (pp. 35–56). New York: Wiley.

Levant, R. F., Allen, P. A., & Lien, M. C. (2014). Alexithymia in men: How and when do emotional processing deficiencies occur? *Psychology of Men & Masculinity*, *15*(3), 324. DOI: 10.1037/a0033860

Levant, R. F., Hall, R. J., & Rankin, T. J. (2013). Male Role Norms Inventory–Short Form (MRNI-SF): Development, confirmatory factor analytic investigation of structure, and measurement invariance across gender. *Journal of Counseling Psychology*, *60*(2), 228. DOI: 10.1037/a0031545

Levant, R. F., Richmond, K., Majors, R. G., Inclan, J. E., Rossello, J. M., Heesacker, M., ... & Sellers, A. (2003). A multicultural investigation of masculinity ideology and alexithymia. *Psychology of Men & Masculinity, 4*(2), 91. DOI: 10.1037/1524-9220.4.2.91

Lips, H. M. (2017). *Sex and gender: An introduction.* Long Grove, IL: Waveland Press.

Litrownik, A. J., Lau, A., English, D. J., Briggs, E., Newton, R. R., Romney, S., & Dubowitz, H. (2005). Measuring the severity of maltreatment. *Child Abuse and Neglect, 29*, 553–573. https://doi.org/10.1016/j.chiabu.2003.08.010

Lo, Y. T., Mendell, N. R., & Rubin, D. B. (2001). Testing the number of components in a normal mixture. *Biometrika, 88,* 767–778. https://doi.org/10.1093/biomet/88.3.767

Lovallo, W. R. (2015). *Stress and health: Biological and psychological interactions.* California: Sage publications.

Lowe, R. D., Heim, D., Chung, C. K., Duffy, J. C., Davies, J. B., & Pennebaker, J. W. (2013). In verbis, vinum? Relating themes in an open-ended writing task to alcohol behaviors. *Appetite*, *68*, 8-13. https://doi.org/10.1016/j.appet.2013.04.008

Luo, X., George, M. L., Kakouras, I., Edwards, C. L., Pietrobon, R., Richardson, W., & Hey, L. (2003). Reliability, validity, and responsiveness of the short form 12-item survey (SF-12) in patients with back pain. *Spine, 28*(15), 1739-1745. doi: 10.1097/01.BRS.0000083169.58671.96

Luthra, R., & Gidycz, C. A. (2006). Dating violence among college men and women: evaluation of theoretical model. *Journal of Interpersonal Violence, 21*(6), 717– 731. doi: 10.1177/ 0886260506287312

Lynch, K. R., Jewell, J. A., Golding, J. M., & Kembel, H. B. (2017). Associations between sexual behavior norm beliefs in relationships and intimate partner rape judgments. *Violence against women*, *23*(4), 426-451. https://doi.org/10.1177/1077801216642871

MacDonell, L., & Bolton, C. (2017). Dual histories of abuse and perpetration. In Garter, R. B. (2017) (Ed) *Healing Sexually Betrayed Men and Boys: Treatment for Sexual Abuse, Assault, and Trauma*. 294. Oxon; Routledge

MacKinnon, D. P., Fairchild, A. J., & Fritz, M. S. (2007). Mediation analysis. *Annu. Rev. Psychol.*, *58*, 593-614. https://doi.org/10.1146/annurev.psych.58.110405.085542

Makepeace, J. M. (1981). Courtship violence among college students. *Family Relations*, 97-102. DOI: 10.2307/584242

Malecki, J., Rhodes, P., & Ussher, J. (2018). Childhood trauma and anorexia nervosa: From body image to embodiment. *Health Care for Women International*, 1-14. DOI: https://doi.org/10.1080/07399332.2018.1443108

Malecki, J., Rhodes, P., & Ussher, J. (2018). Women's Constructions of Childhood Trauma and Anorexia Nervosa: a Qualitative Meta-Synthesis. *Human Arenas*, *1*(3), 231-248. https://doi.org/10.1007/s42087-018-0029-3

Maniglio, R. (2009). The impact of child sexual abuse on health: A systematic review of reviews. *Clinical Psychology Review*, *29*(7), 647-657. https://doi.org/10.1016/j.cpr.2009.08.003

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, *35*(2), 63.

Marshall, L. L., & Rose, P. (1988). Family of origin violence and courtship abuse. *Journal of Counseling & Development*, *66*(9), 414-418. https://doi.org/10.1002/j.1556-6676.1988.tb00902.x

Martin, C. G., Cromer, L. D., DePrince, A. P., & Freyd, J. J. (2013). The role of cumulative trauma, betrayal, and appraisals in understanding trauma

symptomatology. *Psychological Trauma: Theory, Research, Practice, and Policy, 5*(2), 110. DOI: 10.1037/a0025686

Masten, A. S., & Coatsworth, J. D. (1998). The development of competence in favorable and unfavorable environments: Lessons from research on successful children. *American Psychologist, 53*(2), 205. https://doi.org/10.1037/0003-066X.53.2.205

Mawby, R., & Walklate, S. (1994). *Critical victimology: International perspectives*. London, UK: Sage.

Maxfield, M. G., & Grande-Bretagne. Home office. (1984). *Fear of crime in England and Wales* (Vol. 78). HM Stationery Office. Retrieved from https://www.ncjrs.gov/App/abstractdb/AbstractDBDetails.aspx?id=94469

May-Chahal, C., & Cawson, P. (2005). Measuring child maltreatment in the United Kingdom: a study of the prevalence of child abuse and neglect. *Child Abuse & Neglect, 29*(9), 969-984. https://doi.org/10.1016/j.chiabu.2004.05.009

Mayou, R. A., Ehlers, A., & Hobbs, M. (2000). Psychological debriefing for road traffic accident victims. *The British Journal of Psychiatry, 176*(6), 589-593. https://doi.org/10.1192/bjp.176.6.589

McBride, O., Morgan, K., & McGee, H. (2012). Irish contraception and crisis pregnancy study 2010 (ICCP-2010) a survey of the general population. Retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.474.481&rep=rep1&type=pdf

McCammon, S., Durham, T. W., Allison, E. J., & Williamson, J. E. (1988). Emergency workers' cognitive appraisal and coping with traumatic events. *Journal of Traumatic Stress, 1*(3), 353-372. https://doi.org/10.1007/BF00974770

McChesney, G. C., Adamson, G., & Shevlin, M. (2015). A latent class analysis of trauma based on a nationally representative sample of US adolescents. *Social Psychiatry and Psychiatric Epidemiology*, *50*(8), 1207-1217. https://doi.org/10.1007/s00127-015-1075-5

McCoy, M. L., & Keen, S. M. (2013). *Child abuse and neglect*. New York, Psychology Press.

McEwen, B. S., & Rasgon, N. L. (2018). The Brain and Body on Stress Allostatic Load and Mechanisms for Depression and Dementia. In Strain, J. J., & Blumenfield, M. (Eds.). *Depression as a Systemic Illness*. (pp 14-36). Oxford University Press.

McFarlane, K. (2017). Care-criminalisation: The involvement of children in out-of-home care in the New South Wales criminal justice system. *Australian & New Zealand Journal of Criminology*. https://doi.org/10.1177/0004865817723954

McManus, S., Meltzer, H., Brugha, T., Beddington, P., Jenkins, R. (2009). *Adult Psychiatric Morbidity in England. Results from a Household Survey.* London: National Centre for Social Research.

McNelly, A. S., Rawal, J., Shrikrishna, D., Hopkinson, N. S., Moxham, J., Harridge, S. D., ... & Puthucheary, Z. A. (2016). An exploratory study of long-term outcome measures in critical illness survivors: construct validity of physical activity, frailty, and health-related quality of life measures. *Critical Care Medicine, 44*(6), e362-e369. https://doi.org/10.1097/CCM.0000000000001645

Melde, C., Taylor, T. J., & Esbensen, F. A. (2009). "I got your back": An examination of the protective function of gang membership in adolescence. *Criminology*, *47*(2), 565-594. https://doi.org/10.1111/j.1745-9125.2009.00148.x

Merritt, D. H., & Klein, S. (2015). Do early care and education services improve language development for maltreated children? Evidence from a national child welfare sample. *Child Abuse & Neglect, 39,* 185-196. https://doi.org/10.1016/j.chiabu.2014.10.011

Merz, E. L., Roesch, S. C., Malcarne, V. L., Penedo, F. J., Llabre, M. M., Weitzman, O. B., ... & Johnson, T. P. (2014). Validation of interpersonal support evaluation list-12 (ISEL-12) scores among English-and Spanish-speaking Hispanics/Latinos from the HCHS/SOL Sociocultural Ancillary Study. *Psychological Assessment, 26*(2), 384. https://doi.org/10.1037/a0035248

Messman, T. L., & Long, P. J. (1996). Child sexual abuse and its relationship to revictimization in adult women: a review. *Clinical Psychology Review,16*(5), 397–420. https://doi.org/10.1016/0272-7358(96)00019-0

Messman-Moore, T. L., & Long, P. J. (2000). Child sexual abuse and revictimization in the form of adult sexual abuse, adult physical abuse, and adult psychological maltreatment. *Journal of Interpersonal Violence,15*(5),489–502. https://doi.org/10.1177/088626000015005003

Mihalic, S. W., & Elliott, D. (1997). A social learning theory model of marital violence. *Journal of Family Violence*, *12*(1), 21-47.

Milner, J. S., & Crouch, J. L. (1993). Physical child abuse. In R. L. Hampton, T. P. Gullotta, G. R. Adams, E. H. Potter III, & R. P. Weissberg (Eds.), *Family*

violence: Prevention and treatment, issues in children's and families' lives, vol. 1. Newbury Park, CA: Sage Publications.

Moak, Z. B., & Agrawal, A. (2009). The association between perceived interpersonal social support and physical and mental health: results from the National Epidemiological Survey on Alcohol and Related Conditions. *Journal of Public Health, 32*(2), 191-201. https://doi.org/10.1093/pubmed/fdp093

Modecki, K. L., Minchin, J., Harbaugh, A. G., Guerra, N. G., & Runions, K. C. (2014). Bullying prevalence across contexts: A meta-analysis measuring cyber and traditional bullying. *Journal of Adolescent Health, 55*(5), 602-611. https://doi.org/10.1016/j.jadohealth.2014.06.007

Moeller, T. P., Bachmann, G. A., & Moeller, J. R. (1993). The combined effects of physical, sexual, and emotional abuse during childhood: Long-term health consequences for women. *Child Abuse & Neglect, 17*, 623–640. https://doi.org/10.1016/0145-2134(93)90084-I

Molnar, B. E., Buka, S. L., & Kessler, R. C. (2001). Child sexual abuse and subsequent psychopathology: results from the National Comorbidity Survey. *American Journal of Public Health, 91*(5), 753.

Monson, C. M., & Langhinrichsen-Rohling, J. (2002). Sexual and nonsexual dating violence perpetration: Testing an integrated perpetrator typology. *Violence and Victims, 17(* 4), 402– 428. doi: 10.1891/ vivi. 17.4.403.33684

Mont Perlin Society (1947). *Statement of Aims.* Retrieved from https://www.montpelerin.org/statement-of-aims/

Morgan, R. E., & Kena, G. (2017). *Criminal Victimization, 2016.* Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. Retrieved from https://www.bjs.gov/content/pub/pdf/cv16.pdf

Morgan, V. & Fraser, G. (1994) *The Company We Keep, women, community and organisations*. Coleraine: University of Ulster.

Morris, E. E., Smith, J. C., Farooqui, S. Y., & Surís, A. M. (2014). Unseen battles: The recognition, assessment, and treatment issues of men with military sexual trauma (MST). *Trauma, Violence, & Abuse, 15*(2), 94-101. https://doi.org/10.1177/1524838013511540

Morrison, C., & Mackay, A. (2000). *The Experience of Harassment and Violence of Gay Men in the City Of Edinburgh*. Edinburgh: Scottish Executive Central Research Unit.

Morse, B. J. (1995). Beyond the Conflict Tactics Scale: Assessing gender differences in partner violence. *Violence and Victims, 10*(4), 251. DOI:10.1891/0886-6708.10.4.251

Mueser, K. T., Salyers, M. P., Rosenberg, S. D., Goodman, L. A., Essock, S. M., Osher, F. C., ... & 5 Site Health and Risk Study Research Committee. (2004). Interpersonal trauma and posttraumatic stress disorder in patients with severe mental illness: Demographic, clinical, and health correlates. *Schizophrenia Bulletin*, *30*(1), 45-57. https://doi.org/10.1093/oxfordjournals.schbul.a007067

Mullen, P. E., & Fergusson, D. M. (1999). *Childhood sexual abuse: An evidence-based perspective (Vol. 40*). London, UK: Sage Publications.

Muthén, L. K., & Muthén, B. O. (1998-2016). Mplus User's Guide. Sixth Edition. Los Angeles, CA: Muthén & Muthén.

Muthén, L. K., & Muthén, B. O. (2014). Mplus (Version 7.3)[computer software].(1998-2014). Los Angeles, CA: Muthén & Muthén.

Myers, J. K., Lindenthal, J. J., & Pepper, M. P. (1975). Life events, social integration and psychiatric symptomatology. *Journal of Health and Social Behavior*, 421-427. DOI: 10.2307/2136613

Myers, M.F. (1989) Men Sexually Assaulted as Adults and Sexually Abused as Boys. *Archives of Sexual Behavior, 18,* 205-209. https://doi.org/10.1007/BF01543195

Nabi, H., Vahtera, J., Singh-Manoux, A., Pentti, J., Oksanen, T., Gimeno, D., ... & Kivimaki, M. (2008). Do psychological attributes matter for adherence to antihypertensive medication? The Finnish Public Sector Cohort Study. *Journal of Hypertension, 26*(11), 2236. doi: 10.1097/HJH.0b013e32830dfe5f

NHS Counselling (2017). Retrieved from https://www.nhs.uk/conditions/counselling/

Nowakowski, M. E., McFarlane, T., & Cassin, S. (2013). Alexithymia and eating disorders: a critical review of the literature. *Journal of Eating Disorders*, *1*(1), 21. https://doi.org/10.1186/2050-2974-1-21

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling, 14*(4), 535-569. http://dx.doi.org/10.1080/10705510701793320

Nylund, K., Bellmore, A., Nishina, A., & Graham, S. (2007). Subtypes, severity, and structural stability of peer victimization: What does latent class analysis say? *Child Development, 78,* 1706–1722. https://doi.org/10.1111/j.1467-8624.2007.01097.x

Oatley, K., Keltner, D. & Jenkins, J. M. (2006b). *Emotions and mental health in childhood. Understanding emotions* (2nd ed.) (pp. 321-351). Oxford, UK: Blackwell Publishing.

O'Connor, M., & Elklit, A. (2008). Attachment styles, traumatic events, and PTSD: A cross-sectional investigation of adult attachment and trauma. *Attachment & Human Development*, *10*(1), 59-71. https://doi.org/10.1080/14616730701868597

Ohrnberger, J., Fichera, E., & Sutton, M. (2017). The relationship between physical and mental health: A mediation analysis. *Social Science & Medicine, 195*, 42-49. https://doi.org/10.1016/j.socscimed.2017.11.008

Okami, P. (1991). Self-reports of "positive" childhood and adolescent sexual contacts with older persons: An exploratory study. *Archives of Sexual Behavior, 20*(5), 437-457. https://doi.org/10.1007/BF01542407

O'leary, S. G., & Slep, A. M. S. (2006). Precipitants of partner aggression. *Journal of Family Psychology, 20(*2), 344. DOI: 10.1037/0893-3200.20.2.344

Oppenheimer, S. (2003). *The real eve: modern man's journey out of Africa*. New York, NY: Basic Books.

Orcutt, H. K., Garcia, M., & Pickett, S. M. (2005). Female-perpetrated intimate partner violence and romantic attachment style in a college student sample. *Violence and Victims*, *20*(3), 287-302. DOI: 10.1891/vivi.20.3.287

Ormel J.; Jeronimus, B.F.; Kotov, M.; Riese, H.; Bos, E.H.; Hankin, B. (2013). "Neuroticism and common mental disorders: Meaning and utility of a complex relationship". *Clinical Psychology Review. 33*(5): 686–697. doi:10.1016/j.cpr.2013.04.003.

Oxford University Press (2018) *English Oxford Living Dictionaries.* Retrieved from https://en.oxforddictionaries.com/definition/victim

Paffenbarger R, Lee I, Leung R. (1994) Physical activity and personal characteristics associated with depression and suicide among American college men. *Acta Psychiatr Scand Suppl 377*:16-22. https://doi.org/10.1111/j.1600-0447.1994.tb05796.x

Palic, S., & Elklit, A. (2014). Personality dysfunction and complex posttraumatic stress disorder among chronically traumatized Bosnian refugees. *The*

Journal of Nervous and Mental Disease, *202*(2), 111-118. doi: 10.1097/NMD.0000000000000079

Paluska, S. A., & Schwenk, T. L. (2000). Physical activity and mental health. *Sports Medicine, 29*(3), 167-180. https://doi.org/10.2165/00007256-200029030-00003

Panter-Brick, C., Eggerman, M., Gonzalez, V., & Safdar, S. (2009). Violence, suffering, and mental health in Afghanistan: a school-based survey. *The Lancet*, *374*(9692), 807-816. https://doi.org/10.1016/S0140-6736(09)61080-1

Paolucci, E., Genuis, M., Violato, C. (2001) A meta-analysis of the published researdh on the effects of child sexual abuse. *Journal of Psychology, 135,* pp. 17-36. https://doi.org/10.1080/00223980109603677

Parker, J. D., Bagby, R. M., Taylor, G. J., Endler, N. S., & Schmitz, P. (1993a). Factorial validity of the 20-item Toronto Alexithymia Scale. *European Journal of Personality, 7*(4), 221-232. https://doi.org/10.1002/per.2410070403

Pears, K. C., Kim, H. K., & Fisher, P. A. (2008). Psychosocial and cognitive functioning of children with specific profiles of maltreatment. *Child Abuse & Neglect, 32*(10), 958-971. https://doi.org/10.1016/j.chiabu.2007.12.009

Pears, K. C., Kim, H. K., Buchanan, R., & Fisher, P. A. (2015). Adverse consequences of school mobility for children in foster care: A prospective longitudinal study. *Child Development, 86*(4), 1210-1226. https://doi.org/10.1111/cdev.12374

Pellegrini, A. D., & Long, J. D. (2002). A longitudinal study of bullying, dominance, and victimization during the transition from primary school through secondary school. *British Journal of Developmental Psychology, 20*(2), 259-280. https://doi.org/10.1348/026151002166442

Penedo, F. J., & Dahn, J. R. (2005). Exercise and well-being: a review of mental and physical health benefits associated with physical activity. *Current Opinion in Psychiatry, 18*(2), 189-193. DOI: 10.1097/00001504-200503000-00013

Pennebaker, J. W., Francis, M. E., & Booth, R. J. (2001). Linguistic inquiry and word count: LIWC 2001. *Mahway: Lawrence Erlbaum Associates*, *71*(2001).

Pereda, N., Guilera, G., Forns, M., & Gómez-Benito, J. (2009). The prevalence of child sexual abuse in community and student samples: A meta-analysis. *Clinical Psychology Review*, *29*(4), 328-338. https://doi.org/10.1016/j.cpr.2009.02.007

Perez, M., Ohrt, T. K., & Hoek, H. W. (2016). Prevalence and treatment of eating disorders among Hispanics/Latino Americans in the United States. *Current Opinion in Psychiatry*, *29*(6), 378-382. https://doi.org/10.1097/YCO.0000000000000277

Pérez-Fuentes, G., Olfson, M., Villegas, L., Morcillo, C., Wang, S., & Blanco, C. (2013). Prevalence and correlates of child sexual abuse: a national study. *Comprehensive Psychiatry, 54*(1), 16-27. https://doi.org/10.1016/j.comppsych.2012.05.010

Perry, B. D., Beauchaine, T., & Hinshaw, S. (2008). Child maltreatment: A neurodevelopmental perspective on the role of trauma and neglect in psychopathology. *Child and Adolescent Psychopathology, 93*-128. Retrieved from http://repository.umpwr.ac.id:8080/bitstream/handle/123456789/147/Child%20and%20Adolescent%20Psychopathology.pdf?sequence=1#page=110

Peterson, D., Taylor, T. J., & Esbensen, F. A. (2004). Gang membership and violent victimization. *Justice Quarterly*, *21*(4), 793-815. https://doi.org/10.1080/07418820400095991

Peterson, Z. D., Voller, E. K., Polusny, M. A., & Murdoch, M. (2011). Prevalence and consequences of adult sexual assault of men: Review of empirical findings and state of the literature. *Clinical Psychology Review, 31*(1), 1-24. https://doi.org/10.1016/j.cpr.2010.08.006

Petscher, Y. M., Schatschneider, C., & Compton, D. L. (Eds.). (2013). *Applied quantitative analysis in education and the social sciences.* London, UK: Routledge.

Pfeffer, R., & Cuevas, C. A. (2016). Research on the Victimization of Understudied Populations. In Cuevas, C. A., & Rennison, C. M. *The Wiley handbook on the psychology of violence.* (pp. 715-726) England, UK: John Wiley & Sons.

Phillips, S. M., Stampfer, M. J., Chan, J. M., Giovannucci, E. L., & Kenfield, S. A. (2015). Physical activity, sedentary behavior, and health-related quality of life in prostate cancer survivors in the health professionals follow-up study. *Journal of Cancer Survivorship, 9(*3), 500-511. https://doi.org/10.1007/s11764-015-0426-2

Pickett, K. E., & Wilkinson, R. G. (2015). Income inequality and health: a causal review. *Social Science & Medicine, 128*, 316-326. https://doi.org/10.1016/j.socscimed.2014.12.031

Pitts, J., & Smith, P. (1995). *Preventing school bullying*. Home Office, Police Department. Retrieved from https://www.researchgate.net/profile/Peter_Smith34/publication/242741814_Parenting_and_School_Bullying/links/0deec5315f98e49c69000000/Parenting-and-School-Bullying.pdf

Ports, K. A., Ford, D. C., & Merrick, M. T. (2016). Adverse childhood experiences and sexual victimization in adulthood. *Child Abuse & Neglect, 51,* 313-322. https://doi.org/10.1016/j.chiabu.2015.08.017

Powell, G. N., & Butterfield, D. A. (2015). The role of androgyny in leader prototypes over four decades. Gender in Management: *An International Journal, 30*(1), 69-86. https://doi.org/10.1108/GM-07-2013-0082

Powers, A., Ressler, K. J., & Bradley, R. G. (2009). The protective role of friendship on the effects of childhood abuse and depression. *Depression and Anxiety, 26*(1), 46-53. https://doi.org/10.1002/da.20534

Preacher, K. J., & Selig, J. P. (2012). Advantages of Monte Carlo confidence intervals for indirect effects. *Communication Methods and Measures, 6*(2), 77-98. https://doi.org/10.1002/da.20534

Preston, D. (2016). Screening and Stigma: Lack of Male Representation in Childhood Sexual Abuse Research and Literature. Retrieved from https://vc.bridgew.edu/cgi/viewcontent.cgi?referer=https://scholar.google.co.uk/&httpsredir=1&article=1166&context=honors_proj

Quinney, R. (1972). Who is the Victim? *Criminology, 10*(3), 314-323. https://doi.org/10.1002/da.20534

Raftery, A. E. (1995). Bayesian model selection in social research. *Sociological Methodology, 25*, 111–163. DOI: 10.2307/271063

Ramaswamy, V., DeSarbo, W. S., Reibstein, D. J., & Robinson. W. T. (1993). An empirical pooling approach for estimating marketing mix elasticities with PIMS data. *Marketing Science, 12,* 103–124. https://doi.org/10.1287/mksc.12.1.103

Ramsey-Klawsnik, H., & Heisler, C. (2014). Polyvictimization in later life. *Victimization of the Elderly and Disabled, 17*(1), 3-6. Retrieved from http://www.napsa-now.org/wp-content/uploads/2016/08/701-Polyvictimization-in-Later-Life.pdf

Rayner, D. V., & Trayhurn, P. (2001). Regulation of leptin production: sympathetic nervous system interactions. *Journal of Molecular Medicine, 79*(1), 8-20. https://doi.org/10.1007/s001090100198

Read, J., Perry, B. D., Moskowitz, A., & Connolly, J. (2001). The contribution of early traumatic events to schizophrenia in some patients: a traumagenic neurodevelopmental model. Psychiatry*: Interpersonal and Biological Processes, 64*(4), 319-345. https://doi.org/10.1521/psyc.64.4.319.18602

Rebbe, R., Nurius, P. S., Ahrens, K. R., & Courtney, M. E. (2017). Adverse childhood experiences among youth aging out of foster care: A latent class analysis. *Children and Youth Services Review*, *74*, 108-116. https://doi.org/10.1016/j.childyouth.2017.02.004

Reiman, J.H. (1979). *The rich get richer and the poor get prison: Ideology, class, and criminal justice.* New York: John Wiley and Sons.

Resick, P. A., Bovin, M. J., Calloway, A. L., Dick, A. M., King, M. W., Mitchell, K. S., ... & Wolf, E. J. (2012). A critical evaluation of the complex PTSD literature: Implications for DSM-5. *Journal of Traumatic Stress, 25*(3), 241-251. https://doi.org/10.1002/jts.21699

Resnick, B., & Nahm, E. S. (2001). Reliability and validity testing of the revised 12-item Short-Form Health Survey in older adults. *Journal of Nursing Measurement, 9*(2), 151-161. DOI: 10.1891/1061-3749.9.2.151

Richards, J. L. (2000). Protecting the child witness in abuse cases. *Fam. LQ, 34,* 393. Retrieved from https://heinonline.org/HOL/LandingPage?handle=hein.journals/famlq34&div=32&id=&page=

Richardson, C. R., Faulkner, G., McDevitt, J., Skrinar, G. S., Hutchinson, D. S., & Piette, J. D. (2005). Integrating physical activity into mental health services for persons with serious mental illness. *Psychiatric Services, 56*(3), 324-331. https://doi.org/10.1176/appi.ps.56.3.324

Riggs, D. S. (1993). Relationship problems and dating aggression: A potential treatment target. *Journal of Interpersonal Violence*, *8*(1), 18-35. https://doi.org/10.1177/088626093008001002

Rind, B., Tromovitch, P., & Bauserman, R. (1998). A meta-analytic examination of assumed properties of child sexual abuse using college samples. *Psychological Bulletin*, *124*(1), 22. DOI: 10.1037/0033-2909.124.1.22

Rivera-Rivera, L., Allen-Leigh, B., Rodríguez-Ortega, G., Chávez-Ayala, R., & Lazcano-Ponce, E. (2007). Prevalence and correlates of adolescent dating violence: Baseline study of a cohort of 7960 male and female Mexican public school students. *Preventive Medicine, 44*(6), 477-484. https://doi.org/10.1016/j.ypmed.2007.02.020

Robertson R, Robertson A, Jepson R, Maxwell M. (2012) Walking for depression or depressive symptoms: a systematic review and meta-analysis. *Ment Health Phys Act (5)*66–7510. DOI: 1016/j.mhpa.2012.03.002

Robertson, S. L. (2007). Remaking the World': Neo-liberalism and the Transformation of Education and Teachers' Labour. In L. Weis and M. Compton (eds) *The Global Assault on Teachers, Teaching and their Unions*. New York: Palgrav Retrieved from http://www.bris.ac.uk/education/people/academicStaff/edslr/publications/17slr/

Rogers, P. (1995) 'Male Rape: The Impact of a Legal Definition on the Clinical Area', *Medicine, Science, Law 35*(4): 303–6. https://doi.org/10.1177/002580249503500406

Rogosa, D. (1980). Comparing nonparallel regression lines. *Psychological Bulletin, 88*(2), 307-321. http://dx.doi.org/10.1037/0033-2909.88.2.307

Romaniuk, J. R., & Loue, S. (2017). Military Sexual Trauma among Men: A Review of the Literature and a Call for Research. *Best Practices in Mental Health*, *13*(1), 81-105. Retrieved from https://www.researchgate.net/profile/Jaroslaw_Romaniuk/publication/317672486_Romaniuk_J_R_and_Loue_S_2017_Military_sexual_trauma_among_men_A_review_of_the_literature_and_a_call_for_research_Best_Practices_in_Mental_Health_131_81-105/links/59b670eeaca2722453a395e8/Romaniuk-J-R-and-Loue-S-2017-Military-sexual-trauma-among-men-A-review-of-the-literature-and-a-call-for-research-Best-Practices-in-Mental-Health-131-81-105.pdf

Rome, E. S. (2004). Eating disorders: uncovering a history of childhood abuse? *Epidemiology*, *15*(3), 262-263. doi: 10.1097/01.ede.0000121382.21292.4c

Rose, J. E., & Corrigall, W. A. (1997). Nicotine self-administration in animals and humans: similarities and differences. *Psychopharmacology*, *130*(1), 28-40. https://doi.org/10.1007/s002130050209

Rosenbaum, S., Vancampfort, D., Steel, Z., Newby, J., Ward, P. B., & Stubbs, B. (2015). Physical activity in the treatment of post-traumatic stress disorder: a systematic review and meta-analysis. *Psychiatry Research, 230*(2), 130-136. https://doi.org/10.1016/j.psychres.2015.10.017

Ross, M., & Conway, M. (1986). *Remembering one's own past: The construction of personal histories.* In R. M. Sorrentino & E. T. Higgins (Eds.), Handbook of motivation and cognition: Foundations of social behavior (pp. 122-144). New York, NY, US: Guilford Press.

Rouse, L. P. (1990). The dominance motive in abusive partners: Identifying couples at risk. *Journal of College Student Development, 31*(4), 330-335

Runtz, M. G., & Schallow, J. R. (1997). Social support and coping strategies as mediators of adult adjustment following childhood maltreatment. *Child Abuse & Neglect, 21*(2), 211-226. http://dx.doi.org/10.1016/S0145-2134(96)00147-0

Rutter, M., & O'Connor, T. G. (1999). *Implications of attachment theory for child care policies*. In Cassidy, J. & Shaver, P. R. (Eds). *Handbook of attachment: Theory, Research, and Clinical Applications*. New York, NY: Guilford Press.

Ryan, D. P. J. (2001). Bronfenbrenner's ecological systems theory. *Retrieved from http://www.floridahealth.gov/AlternateSites/CMS-Kids/providers/early_steps/training/documents/bronfenbrenners_ecological.pdf*

Sabina, C., & Straus, M. A. (2008). Polyvictimization by dating partners and mental health among US college students. *Violence and Victims, 23*(6), 667– 682. doi: 10.1891/ 0886-6708.23.6.667

Sackett, L. A., & Saunders, D. G. (1999). The impact of different forms of psychological abuse on battered women. *Violence and Victims, 14*(1), 105-117. DOI: 10.1891/0886-6708.14.1.105

Salovey, P., & Mayer, J. D. (1990). Emotional intelligence. *Imagination, Cognition and Personality, 9*(3), 185-211. https://doi.org/10.2190/DUGG-P24E-52WK-6CDG

Saltzman, L. E., Fanslow, J. L., McMahon, P. M., & Shelley, G. A. (1999). Intimate partner violence surveillance: Uniform definitions and recommended data elements. Version 1.0. Retrieved from https://stacks.cdc.gov/view/cdc/7537

Salyers, M. P., Bosworth, H. B., Swanson, J. W., Lamb-Pagone, J., & Osher, F. C. (2000). Reliability and validity of the SF-12 health survey among people with severe mental illness. *Medical Care*, *38*(11)*1141*-1150. DOI: 10.1097/00005650-200011000-00008

Saunders, B. E. (2003). Understanding children exposed to violence: Toward an integration of overlapping fields. *Journal of Interpersonal Violence, 18*, 356–376. https://doi.org/10.1177/0886260502250840

Sayer, N. A., Chiros, C. E., Sigford, B., Scott, S., Clothier, B., Pickett, T., & Lew, H. L. (2008). Characteristics and rehabilitation outcomes among patients with blast and other injuries sustained during the Global War on Terror.

Archives of Physical Medicine and Rehabilitation, 89(1), 163-170. https://doi.org/10.1016/j.apmr.2007.05.025

Scacco, A. M. J. (ed.) (1982) *Male Rape: A Casebook of Sexual Aggressions*. New York: AMS

Schafer, J. L., & Graham, J. W. (2002). Missing data: our view of the state of the art. *Psychological Methods, 7*(2), 147. DOI: 10.1037/1082-989X.7.2.147

Schank, R. C., & Abelson, R. (1977). *Scripts, goals, plans, and understanding*. Lawrence Erlbaum, Hillsdale, NJ

Schwarz, G. E. (1978). Estimating the dimension of a model. *Annals of Statistics, 6,* 461–464. doi:10.1214/aos/1176344136

Sclove, S. L. (1987). Application of model selection criteria to some problems in multivariate analysis. *Psychometrika, 52*, 333–343. https://doi.org/10.1007/BF02294360

Scott-Storey, K. (2011). Cumulative abuse: do things add up? an evaluation of the conceptualization, operationalization, and methodological approaches in the study of the phenomenon of cumulative abuse. *Trauma, Violence, & Abuse, 12*(3), 135-150. https://doi.org/10.1177/1524838011404253

Sechrist, K. R., Walker, S. N., & Pender, N. J. (1987). Development and psychometric evaluation of the exercise benefits/barriers scale. *Research in Nursing & Health*, *10*(6), 357-365. https://doi.org/10.1002/nur.4770100603

Sedlak, A. J., Mettenburg, J., Basena, M., Peta, I., McPherson, K., & Greene, A. (2010). *Fourth national incidence study of child abuse and neglect (NIS-4).* Washington, DC: US Department of Health and Human Services. Retrieved from http://cap.law.harvard.edu/wp-content/uploads/2015/07/sedlaknis.pdf

Shevlin, M., Houston, J. E., Dorahy, M. J., & Adamson, G. (2008). Cumulative traumas and psychosis: an analysis of the national comorbidity survey and the British Psychiatric Morbidity Survey. *Schizophrenia Bulletin, 34*(1), 193-199. https://doi.org/10.1093/schbul/sbm069

Shevlin, M., McElroy, E., & Murphy, J. (2015). Loneliness mediates the relationship between childhood trauma and adult psychopathology: evidence from the adult psychiatric morbidity survey. *Social Psychiatry and Psychiatric Epidemiology, 50*(4), 591-601. https://doi.org/10.1007/s00127-014-0951-8

Shevlin, M., O'Neill, T., Houston, J. E., Read, J., Bentall, R. P., & Murphy, J. (2013). Patterns of lifetime female victimisation and psychotic experiences: a study based on the UK Adult Psychiatric Morbidity Survey 2007. *Social Psychiatry and Psychiatric Epidemiology, 48*(1), 15-24. https://doi.org/10.1007/s00127-012-0573-y

Shook, N. J., Gerrity, D. A., Jurich, J., & Segrist, A. E. (2000). Courtship violence among college students: a comparison of verbally and physically abusive couples. *Journal of Family Violence, 15*(1), 1– 21. doi: 10.1023/ A: 1007532718917

Shorey, R. C., Febres, J., Brasfield, H., & Stuart, G. L. (2012). The prevalence of mental health problems in men arrested for domestic violence. *Journal of Family Violence*, *27*(8), 741-748. https://doi.org/10.1007/s10896-012-9463-z

Shpancer, N. (2011) *Male and Female: The Overlapping Curves.* Psychology Today. Retrieved from https://www.psychologytoday.com/us/blog/insight-therapy/201108/male-and-female-the-overlapping-curves

Shroff, H., Reba, L., Thornton, L. M., Tozzi, F., Klump, K. L., Berrettini, W. H., ... & Goldman, D. (2006). Features associated with excessive exercise in women with eating disorders. *International Journal of Eating Disorders, 39*(6), 454-461. https://doi.org/10.1002/eat.20247

Siegler, R. S., DeLoache, J. S., & Eisenberg, N. (2003). *How children develop*. England, UK: Macmillan.

Simonelli, C. J., Mullis, T., Elliot, A. N., & Pierce, T. W. (2002). Abuse by siblings and subsequent experiences of violence within the dating relationship. *Journal of Interpersonal Violence, 17*(2), 103– 121. doi: 10.1177/ 0886260502017002001

Sivakumaran, S. (2007). Sexual violence against men in armed conflict. *European Journal of International Law, 18*(2), 253-276. https://doi.org/10.1093/ejil/chm013

Skogan, W. G. (1977). Dimensions of the dark figure of unreported crime. *Crime & Delinquency*, *23*(1), 41-50. https://doi.org/10.1177/001112877702300104

Skogan, W. G. (1999). *Measuring what matters: Crime, disorder, and fear*. In Measuring what matters: Proceedings from the Policing Research Institute meetings (pp. 37-53). Washington, DC: National Institute of Justice.

Slattery, M. L., Edwards, S. L., Boucher, K. M., Anderson, K., & Caan, B. J. (1999). Lifestyle and colon cancer: an assessment of factors associated with risk.

American Journal of Epidemiology, 150(8), 869-877. https://doi.org/10.1093/oxfordjournals.aje.a010092

Slevin, M. L., Nichols, S. E., Downer, S. M., Wilson, P., Lister, T. A., Arnott, S., ... & Cody, M. (1996). Emotional support for cancer patients: what do patients really want? *British Journal of Cancer, 74*(8), 1275. https://doi.org/10.1038/bjc.1996.529

Smith, G. W., Farrell, M., Bunting, B. P., Houston, J. E., & Shevlin, M. (2011). Patterns of polydrug use in Great Britain: Findings from a national household population survey. *Drug and Alcohol Dependence, 113*(2), 222-228. https://doi.org/10.1016/j.drugalcdep.2010.08.010

Smith, H. L., Summers, B. J., Dillon, K. H., & Cougle, J. R. (2016). Is worst-event trauma type related to PTSD symptom presentation and associated features? *Journal of Anxiety Disorders, 38*, 55-61. https://doi.org/10.1016/j.janxdis.2016.01.007

Sperry, D. M., & Widom, C. S. (2013). Child abuse and neglect, social support, and psychopathology in adulthood: A prospective investigation. *Child Abuse & Neglect, 37*(6), 415-425. https://doi.org/10.1016/j.chiabu.2013.02.006

Spertus, I. L., Yehuda, R., Wong, C. M., Halligan, S., & Seremetis, S. V. (2003). Childhood emotional abuse and neglect as predictors of psychological and physical symptoms in women presenting to a primary care practice. *Child Abuse & Neglect, 27,* 1247–1258. https://doi.org/10.1016/j.chiabu.2003.05.001

Spitzberg, B. H. (1999). An analysis of empirical estimates of sexual aggression victimization and perpetration. *Violence and Victims*, *14*(3), 241-260. DOI:10.1891/0886-6708.14.3.241

Springer, K. W., Sheridan, J., Kuo, D., & Carnes, M. (2007). Long-term physical and mental health consequences of childhood physical abuse: Results from a large population-based sample of men and women. *Child Abuse & Neglect, 31*, 517–530. https://doi.org/10.1016/j.chiabu.2007.01.003

Stanton, A. M., Boyd, R. L., Pulverman, C. S., & Meston, C. M. (2015). Determining women's sexual self-schemas through advanced computerized text analysis. *Child Abuse & Neglect*, *46*, 78-88. https://doi.org/10.1016/j.chiabu.2015.06.003

Statement of Aims (1947) *Mont Perlin Society.* Retrieved from https://www.montpelerin.org/statement-of-aims/

Steine, I. M., Winje, D., Krystal, J. H., Bjorvatn, B., Milde, A. M., Grønli, J., ... & Pallesen, S. (2017). Cumulative childhood maltreatment and its dose-

response relation with adult symptomatology: findings in a sample of adult survivors of sexual abuse. *Child Abuse & Neglect, 65*, 99-111. https://doi.org/10.1016/j.chiabu.2017.01.008

Steinmetz, S. K. (1977). The battered husband syndrome. *Victimology*, *2*(3-4), 499-509.

Stevens, J.(1996). *Applied multivariate statistics for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum

Stoltenborgh, M., Bakermans-Kranenburg, M. J., van IJzendoorn, M. H., & Alink, L. R. (2013). Cultural–geographical differences in the occurrence of child physical abuse? A meta-analysis of global prevalence. *International Journal of Psychology, 48*(2), 81-94. https://doi.org/10.1080/00207594.2012.697165

Storr, C. L., Ialongo, N. S., Anthony, J. C., & Breslau, N. (2007). Childhood antecedents of exposure to traumatic events and posttraumatic stress disorder. *American Journal of Psychiatry, 164*(1), 119-125. DOI: 10.1176/appi.ajp.164.1.119

Straus, M. A., & Gelles, R. J. (1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *Journal of Marriage and the Family*, 465-479. DOI: 10.2307/352033

Straus, M. A., & Ramirez, I. L. (2007). Gender symmetry in prevalence, severity, and chronicity of physical aggression against dating partners by university students in Mexico and USA. *Aggressive Behavior, 33*(4), 281– 290. doi: 10.1002/ ab. 20199

Sugaya, L., Hasin, D. S., Olfson, M., Lin, K. H., Grant, B. F., & Blanco, C. (2012). Child physical abuse and adult mental health: a national study. *Journal of Traumatic Stress*, *25*(4), 384-392. https://doi.org/10.1002/jts.21719

Surtees, P. G., Wainwright, N. W. J., Luben, R. N., Wareham, N. J., Bingham, S. A., & Khaw, K. T. (2008). Psychological distress, major depressive disorder, and risk of stroke. *Neurology, 70*(10), 788-794. DOI: https://doi.org/10.1212/01.wnl.0000304109.18563.81

Swannell, S., Martin, G., Page, A., Hasking, P., Hazell, P., Taylor, A., & Protani, M. (2012). Child maltreatment, subsequent non-suicidal self-injury and the mediating roles of dissociation, alexithymia and self-blame. *Child Abuse & Neglect, 36*(7-8), 572-584. https://doi.org/10.1016/j.chiabu.2012.05.005

Sweeney, S., Air, T., Zannettino, L., Shah, S. S., & Galletly, C. (2015). Gender differences in the physical and psychological manifestation of childhood

trauma and/or adversity in people with psychosis. *Frontiers in Psychology, 6*, 1768. https://doi.org/10.3389/fpsyg.2015.01768

Synnott, A. (2016). *Re-thinking men: Heroes, villains and victims.* New York, NY: Routledge.

Tanskanen, A., Hintikka, J., Honkalampi, K., Haatainen, K., Koivumaa-Honkanen, H., & Viinamäki, H. (2004). Impact of multiple traumatic experiences on the persistence of depressive symptoms–a population-based study. *Nordic Journal of Psychiatry, 58*(6), 459-464. https://doi.org/10.1080/08039480410011687

Taylor, C. B., Sallis, J. F., & Needle, R. (1985). The relation of physical activity and exercise to mental health. *Public Health Reports, 100*(2), 195.

Taylor, S. E. (2011). Social support: A review. In Friedman, H. S. The Oxford Handbook of Health Psychology (pp. 198-214) DOI: 10.1093/oxfordhb/9780195342819.013.0009

Taylor, S. E., Welch, W. T., Kim, H. S., & Sherman, D. K. (2007). Cultural differences in the impact of social support on psychological and biological stress responses. *Psychological Science*, *18*(9), 831-837. https://doi.org/10.1111/j.1467-9280.2007.01987.x

Teten, A. L., Ball, B., Valle, L. A., Noonan, R., & Rosenbluth, B. (2009). Considerations for the definition, measurement, consequences, and prevention of dating violence victimization among adolescent girls. *Journal of Women's Health, 18*(7), 923-927. https://doi.org/10.1089/jwh.2009.1515

Thomas, R., DiLillo, D., Walsh, K., & Polusny, M. A. (2011). Pathways from child sexual abuse to adult depression: The role of parental socialization of emotions and alexithymia. *Psychology of Violence, 1*(2), 121. http://dx.doi.org/10.1037/a0022469

Thomson Reuters (2018). *Assault and Battery Overview.* Retrieved from https://criminal.findlaw.com/criminal-charges/assault-and-battery-overview.html

Thornton, A. J., Graham-Kevan, N., & Archer, J. (2012). Prevalence of women's violent and nonviolent offending behavior: A comparison of self-reports, victims' reports, and third-party reports. *Journal of interpersonal violence, 27*(8), 1399-1427. https://doi.org/10.1177/0886260511425789

Tolin, D. F., & Foa, E. B. (2006). Sex differences in trauma and posttraumatic stress disorder: A quantitative review of 25 years of research. *Psychological Bulletin, 132*, 959–992. DOI: 10.1037/0033-2909.132.6.959

Tolsdorf, C. C. (1976). Social networks, support, and coping: An exploratory study. *Family Process*, *15*(4), 407-417. https://doi.org/10.1111/j.1545-5300.1976.00407.x

Tremblay, C., Hébert, M., & Piché, C. (1999). Coping strategies and social support as mediators of consequences in child sexual abuse victims. *Child abuse & neglect, 23*(9), 929-945. https://doi.org/10.1016/S0145-2134(99)00056-3

Triantafyllou, D., Wang, C., & North, C. S. (2016). Correlates of duration of intimate partner violence among women seeking services at a domestic violence support center. *Journal of Interpersonal Violence*, doi: https://doi.org/10.1177/0886260516647522

Truman, J. I., & Rand, M. R. (2010). *National crime victimization survey.* Washington DC: United States Department of Justice. Office of Justice Programs. Bureau of Justice Statistics. Retrieved from https://www.bjs.gov/content/pub/pdf/cv10.pdf

Truman, J. L. (2011). *Criminal Victimization, 2009*. National Crime Victimization Survey, U.S. Department of Justice. Retrieved from https://books.google.co.uk/books?hl=en&lr=&id=e3uxuozUFegC&oi=fnd&pg=PA1&dq=Truman,+J.+L.+(2011).+Criminal+Victimization+(2009).+&ots=DTZ4oo4rBc&sig=07yQ_COD5pVYSoKFpQUil2_4vZw#v=onepage&q&f=false

Truman, J.L. (2016). Nonfatal Violence. In Cuevas, C.A. & Rennison, C.A. (Ed.), *The Wiley handbook on the psychology of violence.* (pp. 140-157). England, UK: John Wiley & Sons.

Turner, H. A., Shattuck, A., Finkelhor, D., & Hamby, S. (2016). Polyvictimization and youth violence exposure across contexts. *Journal of Adolescent Health, 58*(2), 208-214. https://doi.org/10.1016/j.jadohealth.2015.09.021

Turner, H. A., Shattuck, A., Finkelhor, D., & Hamby, S. (2017). Effects of poly-victimization on adolescent social support, self-concept, and psychological distress. *Journal of Interpersonal Violence, 32(*5), 755-780. https://doi.org/10.1177/0886260515586376

U.S. Bureau of Justice Statistics (2015) *Criminal Victimisation*. Retrieved from https://www.bjs.gov/

U.S. Department of Justice (DOJ, 2014) Crime in the United States, 2013. Federal Bureau of Investigation. Retrieved from https://ucr.fbi.gov/crime-in-the-u.s/2013/crime-in-the-u.s.-2013/rape-addendum/rape_addendum_final.pdf

Uchino, B. N. (2004). *Social support and physical health: Understanding the health consequences of relationships.* Yale University Press.

Utah Health Status Survey. (2001). *Interpreting the SF12.* Utah Department of Health. Retrieved from http://health.utah.gov/opha/publications/2001hss/sf12/SF12_Interpreting.pdf accessed / retrieved 16/02/2018

Van der Kolk, B. A. (2017). Developmental Trauma Disorder: Toward a rational diagnosis for children with complex trauma histories. *Psychiatric Annals, 35*(5), 401-408. https://doi.org/10.3928/00485713-20050501-06

Vandebosch, H., & Van Cleemput, K. (2008). Defining cyberbullying: A qualitative research into the perceptions of youngsters. *CyberPsychology & Behavior, 11*(4), 499-503. https://doi.org/10.1089/cpb.2007.0042

Vaux, A. (1988). *Social support: Theory, research, and intervention*. Santa Barbara: Praeger.

Vaux, A., & Harrison, D. (1985). Support network characteristics associated with support satisfaction and perceived support. *American Journal of Community Psychology, 13*(3), 245-265. https://doi.org/10.1007/BF00914932

victimsofcrime.org (2014) Retrieved from http://victimsofcrime.org/

Vivian, D., & Langhinrichsen-Rohling, J. (1994). Are bi-directionally violent couples mutually victimized? A gender-sensitive comparison. *Violence and Victims, 9*(2), 107. DOI:10.1891/0886-6708.9.2.107

Walby, S. (2005). The cost of domestic violence. London: Department of Trade and Industry. *Interventions to reduce violence and promote the physical and psychosocial well-being of women who experience partner violence: a systematic review of controlled evaluations.* London: Queen Mary's School of Medicine and Dentistry, Centre for Health Sciences Barts and The London.

Walker, L. E. (1989). Psychology and violence against women. American Psychologist, 44(4), 695. DOI: 10.1037/0003-066X.44.4.695

Waller, I. (2011). Rights for victims of crime: Rebalancing justice. Lanham, MD: Rowman & Littlefield Publishers.

Ware, J. E., & Gandek, B. (1998). Overview of the SF-36 health survey and the international quality of life assessment (IQOLA) project. *Journal of clinical epidemiology*, *51*(11), 903-912. https://doi.org/10.1016/S0895-4356(98)00081-X

Ware, J. E., Kosinski, M., & Keller, S. D. (1996). A 12-Item Short-Form Health Survey: construction of scales and preliminary tests of reliability and validity. *Medical Care, 34*(3), 220-233. DOI: 10.1097/00005650-199603000-00003

Ware, J. E., Keller, S. D., & Kosinski, M. (1994). *SF-36 physical and mental health summary scales.* Boston: Health Assessment Lab.

Warner, R. (2000). *The environment of schizophrenia: Innovations in practice, policy and communication.* London and Philadelphia: Brunner-Routledge.

Weiss, D. S., Marmar, C. R., Schlenger, W. E., Fairbank, J. A., Kathleen Jordan, B., Hough, R. L., & Kulka, R. A. (1992). The prevalence of lifetime and partial post-traumatic stress disorder in Vietnam theater veterans. *Journal of Traumatic Stress*, *5*(3), 365-376. https://doi.org/10.1002/jts.2490050304

Weiss, K. (2015). The role of relationship therapy in working with family violence. InP sych: *The Bulletin of the Australian Psychological Society Ltd, 37*(5), 14.

Werner, K. B., McCutcheon, V. V., Challa, M., Agrawal, A., Lynskey, M. T., Conroy, E., ... & Heath, A. C. (2016). The association between childhood maltreatment, psychopathology, and adult sexual victimization in men and women: results from three independent samples. *Psychological Medicine, 46*(3), 563-573. https://doi.org/10.1017/S0033291715002056

Whitaker, D. J., Haileyesus, T., Swahn, M., & Saltzman, L. S. (2007). Differences in frequency of violence and reported injury between relationships with reciprocal and nonreciprocal intimate partner violence. *American Journal of Public Health, 97*(5), 941-947. DOI: 10.2105/AJPH.2005.079020

Widera-Wysoczańska, A., & Kuczyńska, A. (Eds.). (2010). *Interpersonal Trauma and Its Consequences in Adulthood.* England, UK: Cambridge Scholars Publishing. Retrieved from https://books.google.co.uk/books?hl=en&lr=&id=DngnBwAAQBAJ&oi=fnd&pg=PR5&dq=Widera-Wysocza%C5%84ska,+A.,+%26+Kuczy%C5%84ska,+A.+(2010).+&ots=FI2j7no3sH&sig=q4lZxWEcPEs4r4jLcD04Tb3aoKw#v=onepage&q=Widera-Wysocza%C5%84ska%2C%20A.%2C%20%26%20Kuczy%C5%84ska%2C%20A.%20(2010).&f=false

Widmayer, S. A. (2004). *Schema theory: An introduction*. Retrieved from https://pdfs.semanticscholar.org/47b1/5487db915f62aec7a1f57c6f64c0c1c5234f.pdf

Williams, A. W., Ware Jr, J. E., & Donald, C. A. (1981). A model of mental health, life events, and social supports applicable to general populations. *Journal of Health and Social Behavior,* 324-336. DOI: 10.2307/2136675

Williams, J. E., & Best, D. L. (1977). Sex stereotypes and trait favorability on the Adjective Check List. *Educational and Psychological Measurement, 37*(1), 101-110. https://doi.org/10.1177/001316447703700111

Williams, J. E., & Best, D. L. (1990). *Measuring sex stereotypes: A multination study, Rev*. Thousand Oaks, CA: Sage Publications, Inc.

Williams, S. L., & Frieze, I. H. (2005). Courtship behaviors, relationship violence, and breakup persistence in college men and women. *Psychology of Women Quarterly, 29*, 248– 257. doi: 10.1111/ j. 1471-6402.2005.00219. x

Wilson, L. C., & Miller, K. E. (2016). Meta-analysis of the prevalence of unacknowledged rape. *Trauma*, *Violence*, *& Abuse*, *17*(2), 149-159. https://doi.org/10.1177/1524838015576391

Wolf, M., Chung, C. K., & Kordy, H. (2010). Inpatient treatment to online aftercare: e-mailing themes as a function of therapeutic outcomes. *Psychotherapy Research*, *20*(1), 71-85. https://doi.org/10.1080/10503300903179799

Wolfe, D. A., & McGee, R. A. (1994). Dimensions of child maltreatment and their relationship to adolescent adjustment. *Developmental Psychopathology, 6*, 165–181. https://doi.org/10.1017/S0954579400005939

Wolff, N., Blitz, C. L., Shi, J., Siegel, J., & Bachman, R. (2007). Physical violence inside prisons: Rates of victimization. *Criminal Justice and Behavior*, *34*(5), 588-599. https://doi.org/10.1177/0093854806296830

Wolfgang, M. E. (1958). *Patterns in criminal homicide.* Oxford, England: Univer. Pennsylvania Press.

World Health Organisation (2016) *Child Maltreatment Fact Sheet.* Retrieved from http://www.who.int/news-room/fact-sheets/detail/child-maltreatment

World Health Organization. (1993). The ICD-10 classification of mental and behavioural disorders : diagnostic criteria for research. Geneva : World Health Organization. http://www.who.int/iris/handle/10665/37108

Yang, J., Miller, T. R., Zhang, N., LeHew, B., & Peek-Asa, C. (2014). Incidence and cost of sexual violence in Iowa. *American Journal of Preventive Medicine*, *47*(2), 198-202. https://doi.org/10.1016/j.amepre.2014.04.005

Yarcheski, A., & Mahon, N. E. (1999). The moderator-mediator role of social support in early adolescents. *Western Journal of Nursing Research*, *21*(5), 685-698. https://doi.org/10.1177/01939459922044126

Yates, T. M., Gregor, M. A., & Haviland, M. G. (2012). Child maltreatment, alexithymia, and problematic internet use in young adulthood. *Cyberpsychology, Behavior, and Social Networking, 15*(4), 219-225. https://doi.org/10.1089/cyber.2011.0427

Yehuda, R., Halligan, S. L., & Bierer, L. M. (2001). Relationship of parental trauma exposure and PTSD to PTSD, depressive and anxiety disorders in offspring. *Journal of Psychiatric Research, 35*(5), 261-270. https://doi.org/10.1016/S0022-3956(01)00032-2

Zeringer, B. D. (1972) 'Sexual Assaults and Forced Homosexual Relationships in Prison: Cruel and Unusual Punishment', *Albany Law Review 36*: 428–38

Zlotnick, C., Johnson, J., Kohn, R., Vicente, B., Rioseco, P., & Saldivia, S. (2006). Epidemiology of trauma, post-traumatic stress disorder (PTSD) and co-morbid disorders in Chile. *Psychological Medicine*, *36*(11), 1523-1533. https://doi.org/10.1017/S0033291706008282

Zschucke, E., Heinz, A., & Ströhle, A. (2012). Exercise and physical activity in the therapy of substance use disorders. *The Scientific World Journal.* doi:10.1100/2012/901741

Zuckerman, M. (1960). The development of an affect adjective check list for the measurement of anxiety. *Journal of Consulting Psychology, 24*(5), 457-462. http://dx.doi.org/10.1037/h0042713

Appendices

Appendix 1: DSM-5 diagnostic criteria

Substance-Related and Addictive Disorders
Substance-Related Disorders | Substance Use Disorders | Substance-Induced Disorders | Alcohol-Related Disorders | Alcohol Use Disorder | Alcohol Intoxication | Alcohol Withdrawal | Other Alcohol-Induced Disorders | Unspecified Alcohol-Related Disorder | Caffeine-Related Disorders | Caffeine Intoxication | Caffeine Withdrawal | Other Caffeine-Induced Disorders | Unspecified Caffeine-Related Disorder | Cannabis-Related Disorders | Cannabis Use Disorder | Cannabis Intoxication | Cannabis Withdrawal | Other Cannabis-Induced Disorders | Unspecified Cannabis-Related Disorder | Hallucinogen-Related Disorders | Phencyclidine Use Disorder | Other Hallucinogen Use Disorder | Phencyclidine Intoxication | Other Hallucinogen Intoxication | Hallucinogen Persisting Perception Disorder | Other Phencyclidine-Induced Disorders | Other Hallucinogen-Induced Disorders | Unspecified Phencyclidine-Related Disorder | Unspecified Hallucinogen-Related Disorder | Inhalant-Related Disorders | Inhalant Use Disorder | Inhalant Intoxication | Other Inhalant-Induced Disorders | Unspecified Inhalant-Related Disorder | Opioid-Related Disorders | Opioid Use Disorder | Opioid Intoxication | Opioid Withdrawal | Other Opioid-Induced Disorders | Unspecified Opioid-Related Disorder | Sedative-, Hypnotic-, or Anxiolytic-Related Disorders | Sedative, Hypnotic, or Anxiolytic Use Disorder | Sedative, Hypnotic, or Anxiolytic Intoxication | Sedative, Hypnotic, or Anxiolytic Withdrawal | Other Sedative-, Hypnotic-, or Anxiolytic-Induced Disorders | Unspecified Sedative-, Hypnotic-, or Anxiolytic-Related Disorder | Stimulant-Related Disorders | Stimulant Use Disorder | Stimulant Intoxication | Stimulant Withdrawal | Other Stimulant-Induced Disorders | Unspecified Stimulant-Related Disorder | Tobacco-Related Disorders | Tobacco Use Disorder | Tobacco Withdrawal | Other Tobacco-Induced Disorders | Unspecified Tobacco-Related Disorder | Other (or Unknown) Substance–Related Disorders | Other (or Unknown) Substance Use Disorder | Other (or Unknown) Substance Intoxication | Other (or Unknown) Substance Withdrawal | Other (or Unknown) Substance–Induced Disorders | Unspecified Other (or Unknown) Substance–Related Disorder | Non-Substance-Related Disorders | Gambling Disorder

The substance-related disorders encompass 10 separate classes of drugs: alcohol; caffeine; cannabis; hallucinogens (with separate categories for phencyclidine [or similarly acting arylcyclohexylamines] and other hallucinogens); inhalants; opioids; sedatives, hypnotics, and anxiolytics; stimulants (amphetamine-type substances, cocaine, and other stimulants); tobacco; and other (or unknown) substances. These 10 classes are not fully distinct. All drugs that are taken in excess have in common direct activation of the brain reward system, which is involved in the reinforcement of behaviors and the production of memories. They produce such an intense activation of the reward system that normal activities may be neglected. Instead of achieving reward system activation through adaptive behaviors, drugs of abuse directly activate the reward pathways(Koob 2006). The pharmacological mechanisms by which each class of drugs produces reward are different, but the drugs typically activate the system and produce feelings of pleasure, often referred to as a “high.” Furthermore, individuals with lower levels of self-control, which may reflect impairments of brain inhibitory mechanisms, may be particularly predisposed to develop substance use disorders, suggesting that the roots of substance use

disorders for some persons can be seen in behaviors long before the onset of actual substance use itself(Moffitt et al. 2011).

https://doi.org/10.1176/appi.books.9780890425596.dsm16

https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm16

Drug Use Disorders

Nicotine Use Disorder

Alcohol Use Disorder

PTSD

Reactive Attachment Disorder | Disinhibited Social Engagement Disorder | Posttraumatic Stress Disorder | Acute Stress Disorder | Adjustment Disorders | Other Specified Trauma- and Stressor-Related Disorder | Unspecified Trauma- and Stressor-Related Disorder

Trauma- and stressor-related disorders include disorders in which exposure to a traumatic or stressful event is listed explicitly as a diagnostic criterion. These include reactive attachment disorder, disinhibited social engagement disorder, posttraumatic stress disorder (PTSD), acute stress disorder, and adjustment disorders. Placement of this chapter reflects the close relationship between these diagnoses and disorders in the surrounding chapters on anxiety disorders, obsessive-compulsive and related disorders, and dissociative disorders.

https://doi.org/10.1176/appi.books.9780890425596.dsm07

https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm07

Depressive Disorders

Disruptive Mood Dysregulation Disorder | Major Depressive Disorder | Persistent Depressive Disorder (Dysthymia) | Premenstrual Dysphoric Disorder | Substance/Medication-Induced Depressive Disorder | Depressive Disorder Due to Another Medical Condition | Other Specified Depressive Disorder | Unspecified Depressive Disorder | Specifiers for Depressive Disorders

Depressive disorders include disruptive mood dysregulation disorder, major depressive disorder (including major depressive episode), persistent depressive disorder (dysthymia), premenstrual dysphoric disorder, substance/medication-induced depressive disorder, depressive disorder due to another medical condition,

other specified depressive disorder, and unspecified depressive disorder. Unlike in DSM-IV, this chapter “Depressive Disorders” has been separated from the previous chapter “Bipolar and Related Disorders.” The common feature of all of these disorders is the presence of sad, empty, or irritable mood, accompanied by somatic and cognitive changes that significantly affect the individual’s capacity to function. What differs among them are issues of duration, timing, or presumed etiology.

https://doi.org/10.1176/appi.books.9780890425596.dsm04

https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm04

Affective Disorders

Bipolar I Disorder | Bipolar II Disorder | Cyclothymic Disorder | Substance/Medication-Induced Bipolar and Related Disorder | Bipolar and Related Disorder Due to Another Medical Condition | Other Specified Bipolar and Related Disorder | Unspecified Bipolar and Related Disorder | Specifiers for Bipolar and Related Disorders

Bipolar and related disorders are separated from the depressive disorders in DSM-5 and placed between the chapters on schizophrenia spectrum and other psychotic disorders and depressive disorders in recognition of their place as a bridge between the two diagnostic classes in terms of symptomatology, family history, and genetics.
https://doi.org/10.1176/appi.books.9780890425596.dsm03

https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm03

Anxiety Disorders

Separation Anxiety Disorder | Selective Mutism | Specific Phobia | Social Anxiety Disorder (Social Phobia) | Panic Disorder | Panic Attack Specifier | Agoraphobia | Generalized Anxiety Disorder | Substance/Medication-Induced Anxiety Disorder | Anxiety Disorder Due to Another Medical Condition | Other Specified Anxiety Disorder | Unspecified Anxiety Disorder

Anxiety disorders include disorders that share features of excessive fear and anxiety and related behavioral disturbances. Fear is the emotional response to real or perceived imminent threat, whereas anxiety is anticipation of future threat. Obviously, these two states overlap, but they also differ, with fear more often associated with surges of autonomic arousal necessary for fight or flight, thoughts of immediate danger, and escape behaviors, and anxiety more often associated with muscle tension and vigilance in preparation for future danger and cautious or avoidant behaviors. Sometimes the level of fear or anxiety is reduced by pervasive avoidance behaviors. Panic attacks feature prominently within the anxiety disorders

as a particular type of fear response. Panic attacks are not limited to anxiety disorders but rather can be seen in other mental disorders as well.

https://doi.org/10.1176/appi.books.9780890425596.dsm05

https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm05

Eating Disorders

Pica | Rumination Disorder | Avoidant/Restrictive Food Intake Disorder | Anorexia Nervosa | Bulimia Nervosa | Binge-Eating Disorder | Other Specified Feeding or Eating Disorder | Unspecified Feeding or Eating Disorder

Feeding and eating disorders are characterized by a persistent disturbance of eating or eating-related behavior that results in the altered consumption or absorption of food and that significantly impairs physical health or psychosocial functioning. Diagnostic criteria are provided for pica, rumination disorder, avoidant/restrictive food intake disorder, anorexia nervosa, bulimia nervosa, and binge-eating disorder.

https://doi.org/10.1176/appi.books.9780890425596.dsm10

https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm10

Personality Disorders

Dimensional Models for Personality Disorders | General Personality Disorder | Cluster A Personality Disorders | Paranoid Personality Disorder | Schizoid Personality Disorder | Schizotypal Personality Disorder | Cluster B Personality Disorders | Antisocial Personality Disorder | Borderline Personality Disorder | Histrionic Personality Disorder | Narcissistic Personality Disorder | Cluster C Personality Disorders | Avoidant Personality Disorder | Dependent Personality Disorder | Obsessive-Compulsive Personality Disorder | Other Personality Disorders | Personality Change Due to Another Medical Condition | Other Specified Personality Disorder | Unspecified Personality Disorder

This chapter begins with a general definition of personality disorder that applies to each of the 10 specific personality disorders. A personality disorder is an enduring pattern of inner experience and behavior that deviates markedly from the expectations of the individual’s culture, is pervasive and inflexible, has an onset in adolescence or early adulthood, is stable over time, and leads to distress or impairment.

https://doi.org/10.1176/appi.books.9780890425596.dsm18

https://dsm.psychiatryonline.org/doi/full/10.1176/appi.books.9780890425596.dsm18

Appendix 2: Flashcards used in the NESARC III for interpersonal poly-victimization

CARD 45A
STRESSFUL LIFE EXPERIENCES

Traumatic Experiences That Happened to YOU

1 Serious or life-threatening injury
2 Serious or life-threatening illness
3 Saw a dead body or body parts
4 Injured in a terrorist attack
5 Natural disaster, like flood, fire, earthquake, hurricane
6 Sexually abused before age 18
7 Sexually assaulted as an adult
8 Physically abused before age 18
9 Beaten up by spouse/romantic partner
10 Beaten up by someone else
11 Kidnapped/held hostage
12 Stalked
13 Mugged, held up, threatened with a weapon or assaulted in any other way
14 Active military combat
15 Peacekeeper/relief worker
16 Civilian in war zone/place of terror
17 Refugee
18 Prisoner of war
19 Juvenile detention or jail

20 **Any other traumatic or stressful event that happened to you**

Appendix 3: SF-12

SF-12 as delivered in the NESARC III

1. In general, would you say your health is	1. Excellent 2. Very good 3. Good 4. Fair 5. Poor

The following questions are about activities you might do during a typical day. Please tell me if your health now limits you in these activities? If so, how much?

2. Moderate activities, such as moving a table, pushing a vacuum cleaner, bowling, or playing golf	1. Yes, limited a lot 2. Yes, limited a little 3. No, not limited at all
3. Climbing several flights of stairs	1. Yes, limited a lot 2. Yes, limited a little 3. No, not limited at all

The next few questions are about how you feel and how things have been during the past 4 weeks. During the past 4 weeks, tell me how much of the time you had any of the following problems with your work and other regular daily activities as a result of your physical health?

4. How much of the time have you accomplished less than you would like?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time
5. How much of the time have you been limited in the kind of work or other activities you could do?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time

During the past 4 weeks, tell me how much of the time you have had any of the following problems with your work or other regular daily activities as a result of any emotional problems, such as feeling depressed or anxious:

6. How much of the time have you accomplish less than you would like?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time
7. How much of the time have you not done work or other activities as carefully as usual?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time

For the following questions, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks

8.	Have you felt clam and peaceful?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time
9.	Did you have a lot of energy?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time
10.	Have you felt downhearted and blue?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time
11.	During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting friends, relatives, and so forth?	1. None of the time 2. A little of the time 3. Some of the time 4. Most of the time 5. All of the time
12.	During the past 4 weeks, how much did pain interfere with your normal work, including work outside the home and housework?	1. Not at all 2. A little bit 3. Moderately 4. Quite a bit 5. Extremely

Source: NESARC III Questionnaire, https://www.niaaa.nih.gov/research/nesarc-iii/questionnaire

Appendix 4: ISEL 12

ISEL-12 as delivered in the NESARC III

Now I am going to read a few statements and I would like to know how well they describe you. Look at the categories on the card and tell me how true or how false these statements are about you.

1. If I wanted to go on a trip for a day, like to the country, city, mountains or beach, I would have a hard time finding someone to go with me.

2. I feel like there is no one I can share my most private worries and fears with.

3. If I were sick, I know I would find someone to help me with my daily chores.

4. There is someone I can turn to for advice about handling problems with my family.

5. If I decided one afternoon that I would like to go to a movie that evening, I could easily find someone to go with me.

6. When I need suggestions on how to deal with a personal problem, I know someone I can turn to.

7. I don't often get invited to do things with others.

8. If I had to go out of town for a few weeks, it would be difficult to find someone who would look after my house or apartment, like taking care of my plants, garden or pets, getting the mail or watching the house in general

9. If I wanted to have lunch with someone, I could easily find someone to join me.

10. If I were stranded 10 miles from home, someone I know would come and get me.

11. If a family crisis arose, it would be difficult to find someone who would give me good advice about how to handle it.

12. If I needed some help in moving to a new house or apartment, I would have a hard time finding someone to help me.

Source: NESARC III Questionnaire, https://www.niaaa.nih.gov/research/nesarc-iii/questionnaire

Appendix 5: DUA

National Institute on Alcohol Abuse and Alcoholism
Data Use Agreement

The National Institute on Alcohol Abuse and Alcoholism (NIAAA) and (Name of Recipient Institution) hereby enter into this Data Use Agreement (DUA) as of the date specified on the final page hereof.

PRELIMINARY STATEMENT

The National Institute on Alcohol Abuse and Alcoholism has supported collection of data from participants in the National Epidemiologic Survey on Alcohol and Related Conditions-III
(NESARC-III). This well-characterized population provides a unique scientific resource. Promoting optimal use of it on a national scale will require a large and concerted effort that may exceed the research capacity of currently available Study Investigators. The NIAAA has a responsibility to the public in general, and to the scientific community in particular, to encourage the most rapid scientific progress possible using this resource, subject to appropriate terms and conditions. In order to take full advantage of the resource and maximize its research value, it is important that the data, collected with public funds, be made available on appropriate terms and conditions to the largest possible number of qualified investigators in a timely manner.

Recipients who are granted access to Study data must adhere to the requirements of this DUA and obtain an IRB exemption or approval for their project that may be from an expedited or convened review. Failure to comply with this DUA could result in denial of further access to study data. Violationof the confidentiality requirements of this agreement is considered a breach of confidentiality and may leave requesting investigators liable to legal action.

DEFINITIONS

Data: For purposes of this agreement, “Data” refers to the following phenotypic information that has been collected from study participants conducted by the Laboratory of Epidemiology and
Biometry: National Epidemiologic Survey on Alcohol and Related Conditions-III (NESARC III).

TERMS AND CONDITIONS

I request approval to access phenotypic data from the National Epidemiologic Survey on Alcohol Related Conditions-III NESARC
-III). I agree to the following:

1. Research Project.

1.1. These Data will be used by the recipient Principal Investigator
and collaborators in connection with the research project specifically described in an attached Exhibit A. The Project
description should include: project title, a 2-4 paragraph description of the objectives and design, and a brief description of the analysis plan.

1.2. All senior/key personnel working on this Research Project that will have access to the NESARC-III Data will also be listed on the DUA.

1.3. The DUA covers only the Research Project contemplated in the Research Use Statement section. Recipient agrees that Data will not be used in any research that is not disclosed and approved as part of the Research Project. Recipient will submit a completed DUA (this
document) for each research project for which Data are requested
.
1.4. This Agreement will terminate two (2) years from the effective date of this agreement. Continued use of the Data will require execution of a new DUA as specified in paragraph 6.

2. Non-transferabilityAgreement. This DUA is not transferable. Recipient agrees that appointment by Recipient of another Principal Investigator to complete the Research Project will require execution of a new Data Use Agreement in which the new Principal Investigator is designated. If the Recipient changes institutions and wishes to retain access to the NESARC-III Data, a new D
UA in which the new institution acknowledges and agrees to the provisions of the DUA is necessary. If the Recipient adds new NESARC-III data users to their project, their name and contact information will be provided to the NESARC-III DAC.

3. Publication. Prompt publication or other public disclosure of the results of the Research Project is encouraged. Recipient agrees to provide to the NIAAA a copy of any manuscript or other disclosure document ten (10) business days in advance of submission for publication, in order to ensure compliance with the confidentiality requirements set forth in paragraphs 4,5,6,7, and 8 of this Agreement.

4. Acknowledgments. Recipient agrees to acknowledge the contribution of NIAAA-Funding support and support of the intramural program, NIAAA, National Institutes of Health, in any and all oral and written presentations, disclosures, or publications resulting from any and all analyses of Data. The Recipient will acknowledge the source of the Data by including language similar to the following either in the acknowledgment or in the text of the manuscript: ‘This manuscript was prepared using a limited access
dataset obtained from the National Institute on Alcohol Abuse and Alcoholism and does not reflect the opinions or views of NIAAA or the U.S. Government’.

5. Non-Identification. Recipient agrees that Data will not be used, either alone or in conjunction with any other information, in any effort whatsoever to establish the individual identities of any of the subjects from whom Data were obtained.

6. Use Limited to Two(2) Years. Recipient agrees that Data will be destroyed when two (2) years have elapsed from the effective date of this Agreement. A data destruction certificate will be provided to NIAAA. Further use of the Data beyond that time requires completion of a new DUA along with a current IRB exemption letter or approval resulting from either IRB review of a new research protocol or continuing review of the existing research protocol. Note that projects receiving initial IRB approval through expedited or convened review must submit an IRB approval letter for continuing review each year.

7. No Distribution. Recipient agrees to retain control over Data, and further agrees not to transfer Data, with or without charge, to any other entity or any individual. 8. Non-Data. Notwithstanding the definition of “Data” or the agreed Terms and Conditions of this Distribution Agreement, Recipient’s obligations under this Distribution Agreement shall not extend to any information:
(a) that can be demonstrated to have been publicly known at the time of disclosure; or (b) that can be demonstrated to have been in the possession of or that can be demonstrated to have been readily available to Recipient from another source prior to the disclosure; or (c) that becomes part of the public domain or publicly known by publication or otherwise, not due to any unauthorized act by Recipient; or (d) that can be demonstrated as independently developed or acquired by Recipient without reference to
or reliance upon Data provided under this Agreement.

9. Non-Endorsement, Liability. Recipient agrees not to claim, infer, or imply endorsement by the United States government, National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health, Department of Health and Human Services or any of its agencies of the Research Project, the entity, or personnel conducting the Research Project or any resulting commercial product(s). To the extent permitted by law, Recipient agrees to hold the United States Government, Study Investigators, and all other investigator(s) who generated Data and the agents and employees of each of them, harmless and to defend and indemnify all such parties for all liabilities, demands, damages, expenses, and losses arising out of Recipient's use of Data for any purpose.

10. Recipient's Compliance with IRB Requirements. Recipient acknowledges that the conditions for use of Data may be exempt from review or may be approved by the Recipient's Institutional
Review Board (IRB) through expedited or convened review
which must be operating under an Office of Human Research Protections (OHRP) - approved Assurance. Furthermore, Recipient
agrees to comply with all applicable rules for the protection of human subjects, which may includeDepartment of Health and Human Services regulations at 45 CFR Part 46 and other Federal and State laws for the use of these Data. Recipient agrees

to comply fully with all such conditions. Recipient agrees to report promptly to the NIAAA any proposed change in the research project. This DUA is made in addition to, and does not supersede, any of Recipient's institutional policies or any local, State, and/or Federal laws and regulations that provide additional protections for human subjects.

11. Recipient's Permission to Post Information Publicly. Recipient agrees to permit the NIAAA to summarize on the NESARC-III Web site the Recipient's research use of NESARC-III along with the Recipient's name and organizational/institutional affiliation.

12. Privacy Act Notification. In orderto access the NESARC-III, the Recipient agrees to provide the information requested below. The Recipient agrees that information collected from the Recipient, as part of the Data Access Request, may be made public in part or
in whole for tracking and reporting purposes. This Privacy Act Notification is provided pursuant to Public Law 93-579, Privacy Act of 1974, 5 U.S.C. Section 552a. Authority for the collection of the information requested below from the recipient comes from the authorities regarding the establishment of the National Institutes of
Health, its general authority to conduct and fund research and to provide training assistance, and its general authority to maintain records in connection with these and its other functions (42
U.S.C. 203, 241, 289l -1 and 44 U.S.C. 3101), and Section 301 and 493 of the Public Health Service Act. These records will be maintained in accordance with the Privacy Act System of Record Notice 09-25-200 covering "Clinical Basic and Population-based Research Studies of the National Institutes of Health (NIH), HHS/NIH/OD". Primary uses of this information are to document, track, and monitor and evaluate the use of the NIAAA NESARC
-III datasets, as well as notify interested recipients of updates, corrections, or other changes to the database.

13. Security. Recipient acknowledges the expectations set forth by the "NESARC-III Information Security Best Practices" (see below) for the use and security of Data.

14. Annual Update. When requested, Recipient will provide to NIAAA-NESARC-III@mail.nih.gov, within four (4) weeks,
an annual summary of research accomplishments form using NESARC-III Data, including copies of any presentations/ publications/ reports.

15. Amendments. Amendments to this Agreement must be made in writing and signed by authorized representatives of all parties.

16. Termination. The NIAAA may terminate this Agreement if Recipient is in default of any of its conditions and such default has not been remedied within 30 days after the date of written notice of such default by an authorized representative of the NIAAA. Otherwise, either party may terminate this Agreement after providing 30

days written notice to the other party. Recipients agree to immediately report violations of NESARC-III Policy to the NESARC-III Data Access Committee (DAC).

17. Disqualification, Enforcement. Failure to comply with any of the terms specified herein may result in disqualification of Recipient from further use of the NESARC-III Data and receiving
additional Data. The United States Government shall have the right to institute and prosecute any proceeding at law or in equity against the Recipient for violating or threatening to violate the confidentiality requirements of the Agreement, the limitations on the use of the Data provided, or both. Proceedings may be initiated against the violating party, legal representatives, and assigns,
for a restraining injunction, compensatory and punitive damages, mandamus, and/or any other proceeding in law or equity, including obtaining the proceeds from any intellectual property or other rights that are derived in whole or in part from the breach of the confidentiality requirements or use limitations of the Agreement.

18. Accurate Representations. Recipient certifies that the contents of any statements made or reflected in the DUA are truthful and accurate.

19. Duplication of Research. Recipient acknowledges that other researchers are entitled to access the Data on the same terms as Recipient so the duplication of PI's research may occur.

NESARC-III Information Security Best Practices

The purpose of these Security Best Practices, which are subject to applicable law, is to provide minimum security standards and best practices for individuals who use NESARC-III to submit, access, and analyze Data. Keeping NESARC-III information secure through these best practices is important. Subject to applicable law, Recipients agree to immediately report breaches of Data confidentiality to the NESARC-III DAC.

Best Practices

We suggest that you:

•Do not attempt to override technical or management controls to access Data for which you have not been expressly authorized.
•Do not use your trusted position and access right to exploit system controls or access Data for any reason other than in the performance of the proposed research.
•Ensure that everyonedirected to use the system has access to, and is aware of, NESARC-III information Security Best Practices and all existing policies and procedures relevant to the use of NESARC
-III, including but not limited to 45 C.F.R. Part 46.

•Follow the NESARC-III password policy which includes:
oChoose passwords of at least seven characters including at least three of the following types of characters: capital letters, lower case letters, numeric characters and other special characters.
oChange your passwords every six months.
oProtect your NESARC-III password from access by other individuals—for example, store it electronically in a secure location.
•Notify NESARC-III staff, as permitted by law, at NIAAA-NESARC-III@mail.nih.gov of security incidents or when access to NESARC-III is no longer required.

Security Standards

•Protect the Data, providingaccess solely to authorized researchers permitted access to such Data by your institution or to others as required by law.
•When you download NESARC-III Data, download the Data to a secure computer or server with strong password protection.
•Ensure that the computers hosting NESARC-III Data have the latest security patches and are running virus protection software.
•Make sure the Data are not exposed to the Internet or posted to a website that may be discovered by Internet search engines such as Google or Bing.
•If you leave your office, close out of data files or lock your computer. Consider the installation of a timed screen saver with password protection.
•Avoid storing Data on a laptop or other portable medium. If storing
Data on such a device, encrypt the Data. Most operating systems have the ability to natively run an encrypted file system or encrypt portions of the file system.
•When finished using the Data, destroy the Data or otherwise dispose of them properly, as permitted by law.

Available to download from:
https://www.niaaa.nih.gov/sites/default/files/data_distribution_rbg_edited_Final_1_11_2016access.pdf

Appendix 6: Redacted information for NESARC III data release

Procedures for Protection of Confidentiality for Limited Access DataSets

A. Institute Review and Approval of Limited Access Preparation The NIAAA requires that epidemiologic data be provided in a manner that protects the confidentiality and security of study participants. The Institute prepares appropriate documentation of the steps taken to protect their confidentiality in preparing a limited access dataset. A summary of all proposed modifications and deletions to be made to a dataset in preparing it for limited access was approved by the Chief, Laboratory of Epidemiology and Biometry, NIAAA.

B. Guidelines for Limited Access Preparation The following guidelines provided a framework for deletions (and modifications as specified) regarding preparation of the limited access dataset:

1. Names.
2. All geographic subdivisions except for region and urban/rural.
3. All elements of dates (except year) for dates directly related to an individual, including birth date; and all ages over 89, such ages and elements are aggregated into a single category of age 90 or older.
4. Telephone number.
5. Facsimile numbers.
6. Electronic mail addresses.
7. Social Security numbers.
8. Medical record numbers.
9. Health plan beneficiary numbers.
10. Account numbers.
11. Certificate/license numbers.
12. Vehicle identifiers and serial numbers, including license plate numbers.
13. Device identifiers and serial numbers.
14. Web universal resource locators (URLs).
15. Internet protocol (IP) address numbers

Appendix 7: MEM ethics application

UNIVERSITY OF ULSTER **RESEARCH GOVERNANCE**

RG1a APPLICATION TO UNDERTAKE RESEARCH ON HUMAN SUBJECTS

PLEASE REFER TO THE NOTES OF GUIDANCE BEFORE COMPLETING THIS FORM. (Available from the Research Governance website at http://www.ulster.ac.uk/research/rg/)

All sections of this form must be completed (use minimum font size 11). If the form is altered in any way it will be returned unconsidered by the Committee.

This form should be used for research in categories A, B and D

Do not use this form for research being conducted in collaboration with the NHS/HPSS (category C).

SECTION A

Chief Investigator	Dr Cherie Armour
Title of Project	Interpersonal Polyvictimisation and Trauma in a male sample: self-cognitions, world assumptions and trauma narratives.
Student and course (if applicable)	Mrs Carol Rhonda Burns (PhD candidate)
Additional Investigators	Dr Orla McBride Ulster University

Declaration - Chief Investigator:

I confirm that

- this project meets the definition for research in category* ***(please insert)*** B
- this project is viable and is of research or educational merit;
- all risks and ethical and procedural implications have been considered;
- the project will be conducted at all times in compliance with the research description/protocol and in accordance with the University's requirements on recording and reporting;
- this application has not been submitted to and rejected by another committee; and
- Permission has been granted to use all copyright materials including questionnaires and similar instruments

Signed: **Date:**

Once complete, this application and all associated materials must be submitted for peer review

***In addition, you should complete form RG1d for all category D research and**

form RG1e for both category B and D research

Peer Review

- *Those conducting peer review should complete form RG2 and attach it to this form (RG1). RG1, RG2 and all associated materials should then be returned to the Chief Investigator.*
- *Depending upon the outcome of peer review, the Chief Investigator should arrange to submit to the Filter Committee, resubmit the application for further review or consider a new or substantially changed project. The application must not be submitted to the Filter Committee until the peer review process has been completed (except as permitted below)*
- ***Please note that peer review can be conducted by the Filter Committee if time and capacity allow.** This is at the discretion of the Chairperson of each Filter Committee and is subject to change.*

Filter Committee

- *The application must be considered by the Filter Committee in accordance with the requirements of the University*
- *The Filter Committee should complete form RG3 and write to the Chief Investigator indicating the outcome of its review*
- *Depending upon the outcome of the Filter Committee review, the Chief Investigator should arrange to proceed with the research OR submit to the University's Research Ethics Committee OR resubmit the application for further review OR consider a new or substantially changed project*
- *The Filter Committee should retain a complete set of original forms.*

SECTION B

1. Where will the research be undertaken?

Via an online survey administered in the USA

2. a. What prior approval/funding has been sought or obtained to conduct this research? Please also provide the UU cost centre number if known

None

b. Please indicate any commercial interest in/sponsorship of the study

none

3. Duration of the Project

Start: January 2018	End: March 2018	Duration: 3 months

4. Background to and reason(s) for the Project

Please provide a brief summary in language comprehensible to a lay person or non-expert. Full details must be provided in the description/protocol submitted with this application (see Notes of Guidance)

Distress caused to a victim of maltreatment, irrespective of age, has the potential for a variety of long-term catastrophic consequences on mental health (cf. Finkelhor, Ormund, & Turner, 2007; Lagdon, Armour, & Stringer, 2014). Experiences of interpersonal trauma and victimisation can include adverse childhood experiences, bullying, physical or emotional abuse, rape, stalking, assault, intimate partner violence and elder abuse. In addition, cumulative exposures to traumatic experiences are known to increase the risk for mental health outcomes in a dose response fashion (Shevlin, Houston, Dorathy & Adamson, 2008). Of note, a number of prior studies have focused their attention on a single victimisation event (e.g., one of '*the big three*'; sexual abuse, physical abuse, or neglect; Cuevas, Finklehor, Clifford, Ormrod & Turner, 2009, p.) or victimisations of females or mixed gender samples. Thus, few studies have assessed interpersonal trauma or victimisation and mental health outcomes in an exclusively male sample.

The extant literature acknowledges that victimisations rarely occur as stand-alone entities (Finklehor, Ormund & Turner, 2007). Green et al. (2010) concluded that multiple forms of childhood abuse and neglect co-exist – often referred to as 'polyvictimisation' - and suggest victimisations should not be examined in isolation if a true picture of the nature, prevalence, and consequences are to be obtained. Notably, several studies have shown that where victimisation exists, polyvictimisation is common (Dong, Anda, Dube, Giles & Feletti, 2003). Moreover, several recent studies have unanimously reported that where individuals are exposed to various types of interpersonal victimisations, compared to the repeated exposure of a single victimisation, the impact on mental health is far more deleterious (Barnes, Noll, Putman & Trickett, 2009; Cuevas et al., 2009). Other studies have demonstrated that childhood victims can be re-victimised and that cumulative trauma exposure negatively affects mental health (Cavanagh et al., 2013; Desai et al., 2002). Re-victimisation has also been noted in cases of schoolyard bullying (Pitts & Smith, 1995), sexual abuse (Classen et al., 2005), and intimate partner violence (Kuijpers, van der Knaap & Winkel, 2012a).

In assessing and identifying the underlying mechanisms linking one victimisation to another, victimological theory has traditionally highlighted lifestyle factors such as proximity to perpetrators and risk-taking behaviours (Mustaine & Tewksbury 1998; Sampson & Lauritsen 1990). However, critics have argued that these factors do not adequately address re-victimisation particularly as it relates to interpersonal victimisations. More recently, researchers have begun to study psychological mechanisms. Indeed, it has been reported that the mental health outcomes of the initial victimisation may increase risk for subsequent victimisations, particularly in regard to PTSD. Furthermore, factors such as attachment and anger may also increase the risk of further victimisation (Kuijpers, van der Knaap & Winkel, 2012a, 2012b).

5. Aims of the Project

Please provide a brief summary in language comprehensible to a lay person or non-expert. Full details must be provided in the description/protocol submitted with this application (see Notes of Guidance)

As noted, few studies have assessed maltreatment, interpersonal trauma and victimisation in an exclusively male sample; indeed, many researchers contest that the field of trauma and victimisation on the whole is unequally weighted in the direction of female victimization with males appearing to be a forgotten group (Browning 2002; Dube et al., 2005). This study will assess the attributional cognitions that men associate with their own victimisation experiences of interpersonal victimisation and trauma across the life-course and examine the factors that impact the relationship between variables such as non-disclosure, social support, judicial expectations, self-esteem and social comparisons.

- To elucidate cognitions with regard to men's perceptions of themselves in the world around them in direct relation to their experiences of victimisation
- To identify key themes in cognitions for males who have experienced victimisation and their experiences in the judicial system, barriers to reporting and disclosure of their victimisation experiences.
- To establish key themes surrounding the impact of victimisation on men's self-esteem and their social comparisons.

6. Procedures to be used

a. Methods

Please provide a brief summary in language comprehensible to a lay person or non-expert. Full details must be provided in the description/protocol submitted with this application (see Notes of Guidance)

Data will be collected via the Qualitrics software package as a typed online response to a short demographic questionnaire and a further typed trauma script in answer to three guided questions (see appendix 3).
Participants will be recruited via an advert on social media (see appendix 4) and the link will be promoted through various men's support groups (see appendix 5).

b. Statistical techniques

Please provide details of the statistical techniques to be used within the project description/protocol (see Notes of Guidance)

Monologues will be screened for spelling. Analysis of the typed trauma script will be carried out using the "Meaning Extraction Helper" software to identify key

themes, sub themes, high frequency content words and clusters of meaningful words. Principal component analysis will be performed in MPlus as a data reduction method to establish correlational clusters and relationships.

7. Subjects:

a. How many subjects will be recruited to the study (by group if appropriate)?

Sample will be obtained from across the USA adult male population.	>50

b. Will any of the subjects be from the following vulnerable groups -

	YES	NO
Children under 18		x
Adults with learning or other disabilities		x
Very elderly people	x	
Healthy volunteers who have a dependent or subordinate relationship to investigators		x
Other vulnerable groups	X	

If YES to any of the above, please specify and justify their inclusion

Participation will be open to adult males over 18 years of age who are resident in the USA. As recruitment will be conducted online there is no way to screen out anyone who makes a false declaration.
The survey is open to those who are very elderly as there is no upper age limit, although this is of ethical concern, it has been considered as necessary as without the elder age bracket inclusion there will be no assessment of the potential for elder abuse, or victimisation experiences within elder communities. With a growing elder population, it is extremely important that the wealth of rich information these participants can impart be included.
All participants will have a prior history of victimisation experience at some point in their lifetime.

c. Inclusion and exclusion criteria

Please indicate, with reasons, the inclusion criteria for the project

Participation will be open to adult males over 18 years of age who have experienced an interpersonal victimisation experience at some point in their lifetime but not within the last 6 months and who are ordinarily resident in the USA.

Please indicate, with reasons, any exclusion criteria for the project

Under age 18 years will be excluded as this project aims to examine life-course polyvictimisation outcomes and under 18 year olds will have no adult experiences. Anyone who has experienced an interpersonal trauma or victimisation event within the last six months will be excluded to minimise any potential distress. Participation in the study is only open to males who are ordinarily resident in the USA. These exclusion criteria are specifically woven into the background demographic questionnaire so that any participant who meets these criteria are immediately eliminated from the survey.

Yes. While participation in the study will generate anonymous data, as no identifiers will be included in the participant survey submissions, participants will have the opportunity to access a link that will allow for email only entry into a monthly draw for a $50 Amazon e-voucher. The email address used for the draw will be completely separate from the study or any data. The winner of the draw will be notified via the entry email address and the e-voucher will be sent to this email. This voucher can then be added to any amazon account without the researchers being able to identify any of this data. Data for the draw will be held separately from the anonymous participant data on a password protected desktop computer within Ulster University and will be treated in the strictest confidence.

e. Please describe how and where recruitment will take place

A 'Twitter' and 'Facebook' statement will be published via social media that will provide a link to the Qualtrics software and study. Please see appendix 2.
A link to the survey will also be promoted through relevant Twitter accounts including the investigators personal accounts. Several support agencies and charities that operate in the USA have agreed to promote the survey via their web and social media presence (see appendix 5)

8. Ethical implications of the research

Please provide an assessment of the ethical implications of the project

The current study has one ethical implication:

1) Participants will be asked to reflect on their experiences of interpersonal trauma and their victimisation history which they could find distressing. However, according to Cromer et al. (2006), in an examination of trauma history investigations, found that the trauma questions caused minimal distress when compared to other personal questions.
   The researcher has completed basic training in CPT (see appendix 6) and has used this knowledge to inform the framing of the questions. This training also has informed the introduction of a 'trauma narrative'. This empowers the participant to describe freely their individual trauma narrative and allows for free thinking and reflection by the participant.

Cromer, L.D., Freyd, J.J., Binder, A.K., DePrince, A.P., & Becker-Blease, K. (2006). What's the risk in asking? Participant reaction to trauma history questions compared with reaction to other personal questions. *Ethics & Behavior, 16*(4), 347-362.

9. Could the research identify or indicate the existence of any undetected healthcare concern?

Yes [X] **No** [ ]

If **Yes**, please indicate what might be detected and explain what action will be taken (e.g. inform subject's GP)

Due to the nature of the study, participants may disclose negative mental or physical health concern however due to the anonymous nature of the study the researcher will not be able to identify the participant. A full debriefing sheet and list of support and help services will be included at the end of the study.

10. Risk Assessment **

Please indicate any risks to subjects or investigators associated with the project

There is a possibility of minimal psychological distress for participants.

****If you wish, you can use form RG1c – Risk Assessment Record (available from the Research Governance website) to help you assess any risks involved**

11. Precautions

Please describe precautions to be taken to address the above

- Prior to participation in the study, participants will be informed that they will be asked to reflect and give account of their thoughts, feelings and emotions with regard to their trauma history and other functioning.
- Prior to participation in the study, participants will be informed that they are free to withdraw from the study at any time up until they click to submit their survey answers without giving a reason. Once the survey is submitted it will not be possible for participants to withdraw their data as no identification information will be collected as part of the survey.
- Participants will be provided with full debriefing and contact details of support organisations including 1in6.org, the National Council for Aging Care, Stop Abuse for Everyone, Samaritans and Aware Defeat Depression. Should they have concerns regarding their victimisation experiences, mental health or any issue raised they can contact these agencies to discuss traumatic experiences or mental health concerns further.

12. Consent form

It is assumed that as this study is being conducted on human subjects, an information sheet and associated consent form will be provided. A copy of the information sheet and form must be attached to this application. See Notes of Guidance.

If a consent form is not to be used, please provide a justification:

13. Care of personal information

Please describe the measures that will be taken to ensure that subjects' personal data/information will be stored appropriately and made available only to those named as investigators associated with the project.

The data will be stored electronically without any identifying information on a password protected computer on the Ulster University Coleraine campus. The data will only be accessible to the Chief investigator (CI) and the co-investigators with approval from the CI. The data will be held as per UU Data regulations for a period of 10 years.

14. Copyright

Has permission been granted to use all copyright materials including questionnaires and similar instruments?

Yes [X] **No** [ ]

If **No**, please provide the reason

Once you have completed this form you should also complete form RG1d for all category D research and form RG1e for both category B and D research

Page 1a
Please choose which language you would prefer

- English/ Inglés
- Spanish/ Castilian
- Condition: English/ Inglés Is Selected. Skip To: English Language Survey.
- Condition: Spanish/ Castilian Is Selected. Skip To: Spanish Language Survey.

MEM study: Participant Information Sheet – this will be page 1b

Study title: Thoughts and feelings of men who have experienced victimization.

My name is Carol Burns and this research is being conducted at Ulster University as part of PhD project within the School of Psychology. This study will examine the thoughts, feelings and emotions of men resident in the USA, aged 18 years or older and who have been victims of interpersonal trauma and victimization prior to the last 6 months. These experiences include, but are not limited to, being a victim of childhood abuse and neglect; bullying; assault; intimate partner violence and domestic abuse; rape; stalking; elder abuse; and coercive control by another person. We refer to this as the 'victimisation experience'. You will be asked to take 5 minutes to think about and reflect on how your experiences of victimization have made you feel and think about who you are, how you see yourself in relation to other people, and what problems you feel have directly impacted on your thoughts and feeling about yourself.

You will be given the opportunity to tell us what happened to you. Some people find this helpful while others can find this distressing. You can choose not to complete this section, or write as little or as much as you like. You will then be asked to write freely about your thoughts, feelings and emotions in response to three guided questions:

1. Thinking about yourself what were your thoughts, feelings and emotions about telling other people about your victimisation experiences and what had happened to you? This could include things like - Did you feel you could confide in your friends or family about what happened to you? How did you feel about reporting these experiences to the police or other statutory organizations or agencies? Did you think or feel there was anything

preventing you from telling another person about your experiences. Please write freely.

2. Thinking about yourself, what were your thoughts, feeling and emotions about how you see yourself and your place in the world around you? This could include things like feeling confident or nervous around other people, feeling that you fit in or perhaps you feel people judge you? Do you think that your experience of victimization has impacted how you view who you are and how other people view you? Please write freely.
3. Thinking about yourself and your experience of victimisation, what are your thoughts, feelings and emotions about your own self-esteem and your own feelings of self-worth *(your belief and confidence in your own abilities).* Do you see yourself, or think others see you as a person who makes emotional connections to other people? Do you feel, or do you think others feel you make a worthwhile contribution to your community? Please write freely

Your participation will take about 20-30 minutes. No identifying information is requested as part of this study and we will make every effort to protect your confidentiality. You may refuse to participate or withdraw from the study at any time prior to submitting your completed answers. Once you have completed and submitted your responses to the study, these can not be removed from the study due to no identification information being gathered. This means we cannot identify nor extract your responses from that of other respondents. Your data will be held for 10 years. The data from all respondents collectively will be analysed and interpreted in a PhD thesis and corresponding academic publications. If you would like to know

more about the study, please feel free to contact the research team with any questions you might have. The email addresses are:

Dr Cherie Armour: c.armour1@ulster.ac.uk (Chief Investigator)
Rhonda Burns: burns-CR@email.ulster.ac.uk (PhD researcher)

Please be assured that all participation will be completely anonymous.

Support Organisations
Please feel free to make a note of these or print this page.

Samaritans - email: jo@samaritans.org

Male Survivor: Malesurvivor.org

Stop Abuse for Everyone: www.stopabuseforeveryone.org

National Council for Aging Care: Ageinplace.org

The National Centre for Victims of Crime: Victimsofcrime.org

HAVOCA -Help for Adult Victims of Child Abuse https://www.havoca.org/

National Center on Domestic and Sexual Violence
http://www.ncdsv.org/publications_malevictims.html

Healthy Place for your Mental Health
https://www.healthyplace.com/abuse/emotional-psychological-abuse/emotional-abuse-of-men-men-victims-of-emotional-abuse-too/

The national Domestic Violence Helpline:
http://www.thehotline.org/

RAINN- La Línea de Ayuda Nacional Online del Asalto Sexual (National Sexual Assault Hotline)
https://hotline.rainn.org/es/terms-of-service.jsp

Office for Victims of Crime:
Recourses in English - https://www.ovc.gov/help/tollfree.html
Recursos en Español - https://www.ovc.gov/library/espanol.html

Consent Form: this will be page 2

Now that you have read the Participant Information sheet please answer the following question to provide your consent for participation in this study.

Participation in this study is only for those men who are resident in the USA, are 18 years of age or older and have not experienced any victimisation experience within the last six months.

- ❍ I agree to take part in this study
- ❍ I do not agree to take part in this study

Condition: I do not agree to take part... Is Selected. Skip To: End of Survey.

Before completing the study please agree with each of the following statements to give your consent for participation in the current study
I am 18 years of age or older.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I am ordinarily resident in the USA.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I have read the participant information sheet and I am fully informed about the nature of this research.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I am aware that the researcher will make every effort to prevent anyone from knowing my information

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I have been provided with contact details for members of the research team.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I am aware that my participation is voluntary and I have the right to withdraw at any time before I complete and submit my survey

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I am aware that my data will be held for 10 years and may be used within a number research studies. Remember that responses are anonymous and confidentiality will be protected.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I am aware that the subject area is of a sensitive nature and I may find it upsetting.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I understand that if I become upset or distressed I can stop the study at any time.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I understand that I cannot withdraw my data after the study has been complete.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

I understand I have been, and will be provided with helpline numbers and information on support organisations should I wish to seek support.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

Again, please confirm that you agree to take part in this study.

- ❍ Agree
- ❍ Disagree

Condition: Disagree Is Selected. Skip To: End of Survey.

Questionnaire: this will be page 3

This is the start of the study. Please complete these short questions to help us understand your background:

Do you currently identify your gender as male/masculine?

- ❍ Yes
- ❍ No

Condition: No is selected. Skip To: End of Survey.

What is your age in years at your last birthday?

Condition: What is your age in years... Is Less Than 18. Skip To: End of Survey.

What is your current employment status?

- ❍ Part time employed (16 hours per week or less)
- ❍ Full time employed (more than 16 hours per week)
- ❍ Unemployed
- ❍ Student/ In education
- ❍ Retired
- ❍ Other _____

What is your nationality?

- ❍ _____

Are you ordinarily resident in the USA?

- ❍ Yes
- ❍ No

Condition: No Is Selected. Skip To: End of Survey.

What ethnic background or race do you identify with? (please select any that apply)

- ❍ White, non-Hispanic
- ❍ Black, non-Hispanic
- ❍ American Indian/ Alaska Native, non-Hispanic
- ❍ Asian/ Native Hawaiian/ Other Pacific Islande, non-Hispanic
- ❍ Hispanic, any race

What is your sexual orientation?

- ❍ Heterosexual (male & female)
- ❍ Same sex (male & male)
- ❍ Bisexual (either male or female)
- ❍ Asexual (neither male or female)
- ❍ Demisexual (emotionally attached)
- ❍ Other _____

What is your current relationship status?

- ❍ Single
- ❍ Dating
- ❍ Living with a romantic partner, not married
- ❍ Married
- ❍ Separated
- ❍ Divorced
- ❍ Widowed

Have you previously experienced any of the following? (tick all that apply)

- ❑ Childhood neglect
- ❑ Childhood physical abuse
- ❑ Childhood sexual abuse
- ❑ Bullying
- ❑ Witnessing domestic violence as a child
- ❑ Assault without a weapon
- ❑ Assault with a weapon
- ❑ Mugging
- ❑ Intimate partner violence without a weapon
- ❑ Intimate partner violence with a weapon
- ❑ Unwanted sexual attention
- ❑ Rape (including penetration)
- ❑ Stalking
- ❑ Coercive control (emotional and psychological abuse through threats and restrictions against you)
- ❑ Elder abuse

When did you last experience any of these events?

- ❍ less than six months ago
- ❍ more than six months ago

Condition: less than six months ago Is Selected. Skip To: End of Survey.

Have you previously experienced symptoms of, or been diagnosed and/or treated for any of the following? (tick all that apply)

- ❑ Anxiety
- ❑ Depression
- ❑ Post Traumatic Stress Disorder
- ❑ Addiction to alcohol
- ❑ Addiction to prescribed drugs
- ❑ Addiction to illegal drugs
- ❑ Personality disorder (please state) _____
- ❑ Other _____

(this will be page 4)

Some people find it helpful to share their experiences. If you would like to write about what happened to you, please do so here. We will ask about how you feel about these experiences in the next section. Please write freely. Alternatively, skip to the next question.

(this will be page 5)

Now I would like you to think for five to ten minutes about any victimisation experiences that you have suffered. Look in the mirror and see yourself and who you are. Gaze into your own eyes, look at your face. See yourself as others see you and how you see yourself. While looking at your image, think about where you are in your life, your connections to others, and who you really are. Think about how your experience of victimisation made you feel about yourself, how this did or did not impact your thoughts, feelings and emotions, and how you feel about the person that you are today. After five minutes of reflection please continue to the next stage.

(this will be page 6)

Please read the following statement and write your comments below.
Thinking about yourself what were your thoughts, feelings and emotions about telling other people about your victimisation experiences and what had happened to you? This could include things like - Did you feel you could confide in your friends or family about what happened to you? How did you feel about reporting these experiences to the police or other statutory organisations or agencies? Did you think

or feel there was anything preventing you from telling another person about your experiences. Please write freely.

(this will be page 7)

Please read the following statement and write your comments below.
Thinking about yourself, what are your thoughts, feelings and emotions about how you see yourself and your place in the world around you? This could include things like feeling confident or nervous around other people, feeling that you fit in or perhaps you feel people judge you? Do you think your experience of victimisation has impacted how you view who you are and how other people view you? Please write freely.

(this will be page 8)

Please read the following statement and write your comments below.
Thinking about yourself and your experience of victimisation, what are your thoughts, feelings and emotions about your own self-esteem and your own feelings of self-worth *(your belief and confidence in your own abilities).* Do you see yourself, or think others see you as a person who makes emotional connections to other people? Do you feel, or do you think others feel you make a worthwhile contribution to your community? Please write freely.

(this will be page 9)

Thank you for taking part in this study.

This study is being conducted to provide an understanding of the thoughts, feelings and emotions of men who have been victims of interpersonal victimization and traumatic experiences.

All responses to the survey are anonymous.

If you feel you would like support or help because of what you have experienced please contact one of the following resources:
Samaritans - email: jo@samaritans.org

Male Survivor: Malesurvivor.org

Stop Abuse for Everyone: www.stopabuseforeveryone.org

National Council for Aging Care: Ageinplace.org

The National Centre for Victims of Crime: Victimsofcrime.org

HAVOCA -Help for Adult Victims of Child Abuse https://www.havoca.org/

National Center on Domestic and Sexual Violence
http://www.ncdsv.org/publications_malevictims.html

Healthy Place for your Mental Health
https://www.healthyplace.com/abuse/emotional-psychological-abuse/emotional-abuse-of-men-men-victims-of-emotional-abuse-too/

The national Domestic Violence Helpline:
http://www.thehotline.org/

RAINN- La Línea de Ayuda Nacional Online del Asalto Sexual (National Sexual Assault Hotline)
https://hotline.rainn.org/es/terms-of-service.jsp

Office for Victims of Crime:
Recourses in English - https://www.ovc.gov/help/tollfree.html
Recursos en Español - https://www.ovc.gov/library/espanol.html

If you would like to be entered into the draw for a $50 amazon e-voucher please copy and paste the following

MEM50

into a separate email and send to mem50study@gmail.com

Please send your entry from the email address you would like included in the draw. One e-voucher per month will be drawn from all the entries and the winner will be notified by email.

All entries to the draw are confidential and entry to the draw cannot identify any data submitted to the survey

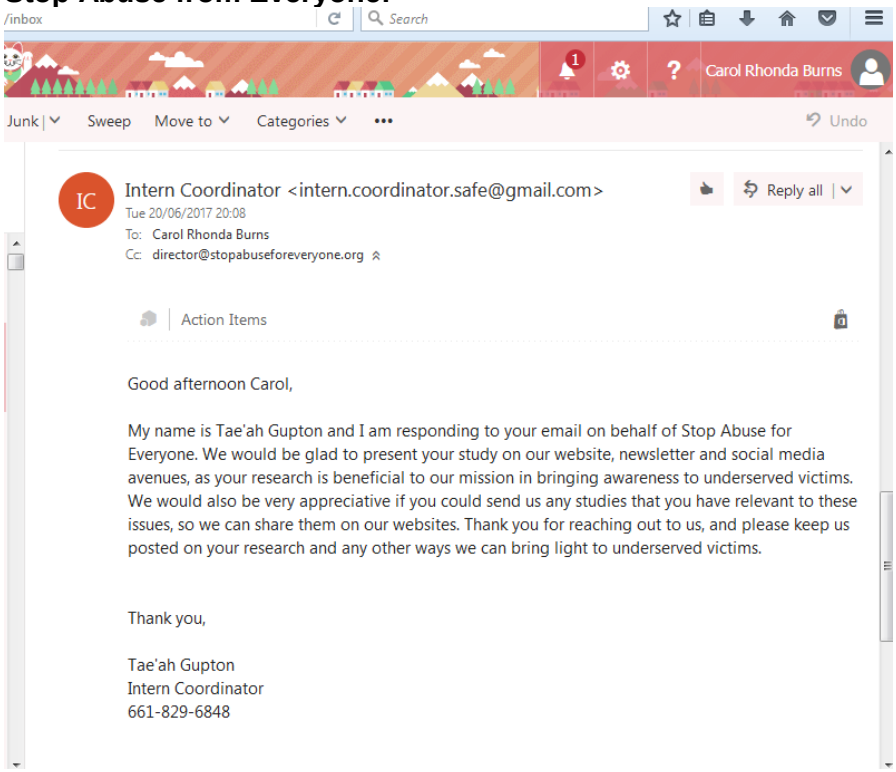
❍ submit

This is an example of a social media link to the study:

Are you male and over 18 years of age? Do you normally live in the USA? At any time in your life have you ever been a victim of abuse or trauma that was of a personal nature? Would you like to take part in a study to help understand how men's thoughts, feelings and emotions about themselves are affected when they have been victims of personal abuse or trauma.
Click on this link (link will appear here)
Once finished you have the opportunity to enter a free draw for a $50 Amazon e-voucher.
This study is being carried out as part of a PhD research study and ethical approval has been granted by Ulster University Research Ethics Committee.

Copies of emails from charity and support organisations to support and promote the study via websites and/or social media:

Stop Abuse from Everyone:



/inbox Search

Carol Rhonda Burns

Junk | Sweep Move to Categories ••• Undo

IC

Intern Coordinator <intern.coordinator.safe@gmail.com>

Tue 20/06/2017 20:08

To: Carol Rhonda Burns

Cc: director@stopabuseforeveryone.org

Reply all

Action Items

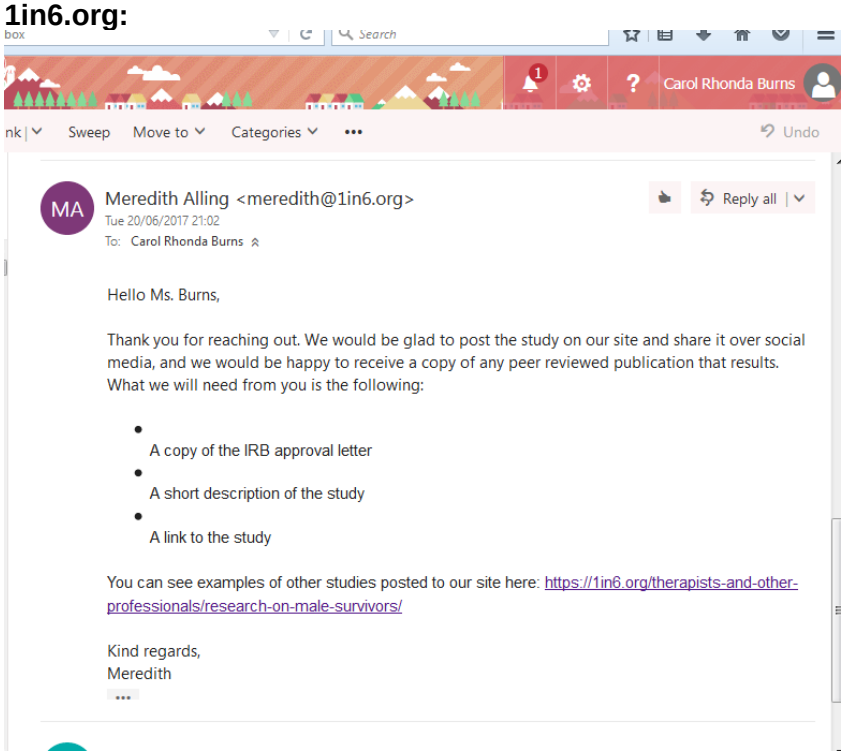
Good afternoon Carol,

My name is Tae'ah Gupton and I am responding to your email on behalf of Stop Abuse for Everyone. We would be glad to present your study on our website, newsletter and social media avenues, as your research is beneficial to our mission in bringing awareness to underserved victims. We would also be very appreciative if you could send us any studies that you have relevant to these issues, so we can share them on our websites. Thank you for reaching out to us, and please keep us posted on your research and any other ways we can bring light to underserved victims.

Thank you,

Tae'ah Gupton
Intern Coordinator
661-829-6848

1in6.org:



box Search

Carol Rhonda Burns

nk | Sweep Move to Categories ••• Undo

MA

Meredith Alling <meredith@1in6.org>

Tue 20/06/2017 21:02

To: Carol Rhonda Burns

Reply all

Hello Ms. Burns,

Thank you for reaching out. We would be glad to post the study on our site and share it over social media, and we would be happy to receive a copy of any peer reviewed publication that results. What we will need from you is the following:

- A copy of the IRB approval letter
- A short description of the study
- A link to the study

You can see examples of other studies posted to our site here: https://1in6.org/therapists-and-other-professionals/research-on-male-survivors/

Kind regards,
Meredith

This is a copy of training completed by Carol Burns (student investigator) in Cognitive Processing Therapy, an important element in this type of research.

MUSC
MEDICAL UNIVERSITY of SOUTH CAROLINA
DEPARTMENT OF PSYCHIATRY AND BEHAVIORAL SCIENCES

Certification of Completion

Carol Burns

has completed to satisfaction

CPTWeb

An On-line Training Course for Cognitive Processing Therapy

and is awarded

9 continuing education contact hours

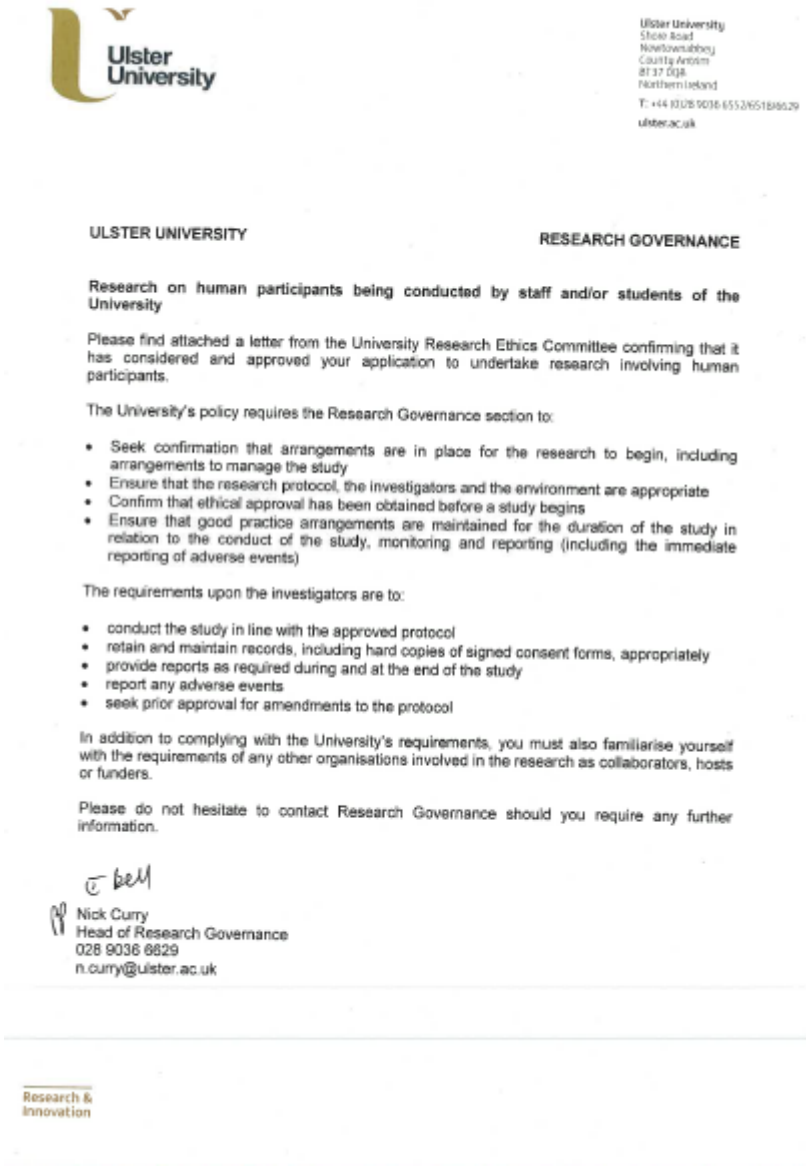
Granted: Thursday 8th of December 2016 10:39:41 AM

Connie L. Best, Ph.D.

Course Director cpt@musc.edu

Approval-SC Board of Examiners in Psychology
Approval-SC Board of Social Work Examiners
Approval-SC Board of LPCs, MFTs, & Psycho-Ed Specialists
Approval-State of Oklahoma Board of Examiners of Psychologists
Approval-Oklahoma State Department of Health Protective Health Services Professional Counselor Licensing Board approved CPTWeb for continuing professional education credits for professional counselors and marriage and family therapists.
Approval-Oklahoma Board of Licensed Alcohol & Drug Counselors has approved CPTWeb for continuing professional education credits for licensed alcohol and drug counselors.
Approval-State of California Board of Behavioral Sciences, PCE 4226 (Valid until March 31, 2016)
The National Crime Victims Research and Treatment Center, Medical University of South Carolina is an NBCC-Approved Continuing Education Provider (ACEP) and may offer NBCC-approved clock hours for events that meet NBCC requirement. The ACEP is solely responsible for all aspects of the Program. is an approved continuing education course (Approval 6512).
This program is Approved by the National Association of Social Workers (Approval # 886453433-0) for 10 Clinical Social Work continuing education contact hours. (6/1/2016-6/30/2017).

Research Ethics Committee Application: Permission to proceed



Ulster University
Shore Road
Newtownabbey
County Antrim
BT37 0QB
Northern Ireland
T: +44 (0)28 9036 6552/6518/8629
ulster.ac.uk

ULSTER UNIVERSITY **RESEARCH GOVERNANCE**

Research on human participants being conducted by staff and/or students of the University

Please find attached a letter from the University Research Ethics Committee confirming that it has considered and approved your application to undertake research involving human participants.

The University's policy requires the Research Governance section to:

- Seek confirmation that arrangements are in place for the research to begin, including arrangements to manage the study
- Ensure that the research protocol, the investigators and the environment are appropriate
- Confirm that ethical approval has been obtained before a study begins
- Ensure that good practice arrangements are maintained for the duration of the study in relation to the conduct of the study, monitoring and reporting (including the immediate reporting of adverse events)

The requirements upon the investigators are to:

- conduct the study in line with the approved protocol
- retain and maintain records, including hard copies of signed consent forms, appropriately
- provide reports as required during and at the end of the study
- report any adverse events
- seek prior approval for amendments to the protocol

In addition to complying with the University's requirements, you must also familiarise yourself with the requirements of any other organisations involved in the research as collaborators, hosts or funders.

Please do not hesitate to contact Research Governance should you require any further information.

C bell

Nick Curry
Head of Research Governance
028 9036 6829
n.curry@ulster.ac.uk

Research & Innovation

Ulster University
Shore Road
Newtownabbey
County Antrim
BT37 0QB
Northern Ireland
T: +44 (0)28 9036 6552/9651 8/8629
ulster.ac.uk

ULSTER UNIVERSITY **RESEARCH GOVERNANCE**

Chief Investigator Statement of Compliance

To be returned following receipt of a favourable ethical opinion and/or HSC Trust permission and prior to commencement of the study

Name of CI: Professor C Armour
Ulster Research Governance Study Ref: REC/17/0085
ORECNI Study Ref: N/A
Study title: Interpersonal Polyvictimisation and Trauma in a male sample: self-cognitions, world assumptions and trauma narratives

Collaborating HSC/NHS organization: N/A

I understand that Ulster University has agreed to act as sponsor/co-sponsor or equivalent for the above study and that this places certain obligations upon me as Chief Investigator.

These are:

- to adhere to the research ethics, governance and other appropriate policies of the University and any HSC/NHS organisation involved in the study
- to conduct the study in full compliance with the approved protocol
- to report any adverse events as required by the University and HSC/NHS procedures
- to provide interim and final reports on the progress and outcomes of the study
- to seek advance permission for any amendments or extensions to the study
- where appropriate to register the study on a publicly accessible database

I agree to the above and confirm that:

- the host HSC/NHS organisation (where applicable) is aware of and supports this study
- a favourable ethical opinion has been obtained (where applicable) and the study will commence on

  date:.....

  and end on

  date:.....

Signed:..... Date:.....
(Chief Investigator)

Research & Innovation

ULSTER UNIVERSITY **RESEARCH ETHICS COMMITTEE**

Guidance

I have received ethical approval from the University Research Ethics Committee (UREC). What should I do now?

You can commence the research once you have completed and returned the Chief Investigator Statement of Compliance and have all other necessary permissions and approvals in place.

What should I do if...

the commencement of the research is delayed?

Contact the Research Governance office. They will confirm when the ethical approval expires and advise you whether or not there is anything you need to do.

the research takes longer than originally indicated?

The Research Governance office will advise whether or not the period of ethical approval will expire prior to the completion of the project. You might have to apply for an extension of the period of ethical approval. If this is the case, you should do so before the current approval period expires (see the next question).

there is an amendment to my project?

It is likely that any amendment will result in changes to the research team, the protocol, participant information sheets or will have implications for recruitment or the scientific quality of the research. Any such amendments (except for urgent safety measures) will require approval from the UREC. You should complete form RG6 available on the Ulster University Portal.

I am asked to complete a progress report?

For projects lasting longer than 12 months, progress reports are requested on behalf of the UREC by the Research Governance Office. You should complete a short progress report indicating the date of commencement and details of progress to date. Ethical approval is kept under review by the UREC.

I am asked to complete a final report?

As Chief Investigator, you have signed a Statement of Compliance requiring you to provide a final report on the outcomes of the project. This report should detail any difficulties or adverse events, outcomes, publications/other output and further research that is likely to take place as a result of your project.

An adverse event occurs?

Urgent safety measures undertaken to protect participants or researchers should be notified at the earliest opportunity. The procedures for reporting such occurrences are available on the Ulster University Portal.
For projects involving the use of relevant material under the Human Tissue Act, see also SOP 9, available on the Ulster University Portal.

Hasilwood House
60 Bishopsgate
London EC2N 4AW
Tel: 020 7847 8670
Fax: 020 7847 8689

TO WHOM IT MAY CONCERN

1st June 2017

Dear Sir/Madam

UNIVERSITY OF ULSTER
AND ALL ITS SUBSIDIARY COMPANIES

We confirm that the above Institution is a Member of U M Association Limited, and that the following covers are currently in place:-

EMPLOYERS' LIABILITY

Certificate No.	Y016458QBE0117A/173
Period of Cover	1 August 2017 to 31 July 2018
Limit of Indemnity	£25,000,000 any one event unlimited in the aggregate.
Includes	Indemnity to Principals
Cover provided by	QBE Insurance (Europe) Limited and Excess Insurers.

PUBLIC AND PRODUCTS LIABILITY

Certificate of Entry No.	UM173/16
Period of Cover	1 August 2017 to 31 July 2018
Includes	Indemnity to Principals

Limit Of Indemnity	£30,000,000 any one event and in the aggregate in respect of Products Liability and unlimited in the aggregate in respect of Public Liability.
Cover provided by	U M Association Limited and Excess Cover Providers led by QBE Insurance (Europe) Limited

If you have any queries in respect of the above details, please do not hesitate to contact us.

Yours faithfully

Susan Wilkinson
For U.M. Association Limited

U M Association Limited
Registered Office: Hasilwood House, 60 Bishopsgate, London, EC2N 4AW
Registered in England and Wales No. 2731799

Chief Investigator Statement of Compliance

Ulster University

Name of CI: Professor C Armour
Ulster Research Governance Study Ref: RE
ORECNI Study Ref: N/A
Study title: Interpersonal Polyvictimisation an
world assumptions and trauma narratives

- to adhere to the research ethics, governance and other appropriate policies of the University and any HSC/NHS organisation involved in the study
- to conduct the study in full compliance with the approved protocol
- to report any adverse events as required by the University and HSC/NHS procedures
- to provide interim and final reports on the progress and outcomes of the study
- to seek advance permission for any amendments or extensions to the study
- where appropriate to register the study on a publicly accessible database

Signed: 2019
(Chief Investigator)

11/01/18