

ABUSE, NEGLECT AND VIOLENCE IN OLDER ADULTS

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BSc (Hons) in Psychology

Thesis submitted to the University of Nottingham
for the degree of Doctor in Forensic Psychology

(September 2020)

Plagiarism Declaration

This is to confirm that I submit this Academic Thesis in the full knowledge of the published guidelines on plagiarism and its consequences.

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Dedication

This thesis is dedicated to my Grandmother, Barbara Harrison. Although she did not see me finish this doctorate, I know she would be extremely proud. Thank you for helping make this a possibility.

Abstract

Introduction: Elder abuse is a pervasive problem, requiring multidisciplinary services, Government, and public attention. Poly-victimisation; experiencing multiple forms of abuse by one or more perpetrators, or one form of abuse by multiple perpetrators, is understudied in older adults. Developmental changes in later life increase vulnerability, therefore, understanding the complexities of elder mistreatment is important.

Aims: The thesis aims to examine risk factors associated with elder abuse subtypes; establish a prevalence estimate of mistreatment and poly-victimisation in older adults across the lifespan (pre-60, since 60, in the past year) with a tool adapted from a measure of childhood poly-victimisation; and identify perpetrators of mistreatment towards older women and their help-seeking and response strategies for mistreatment, since women are more often identified as victims compared to men.

Method: A psychometric critique of measures for childhood poly-victimisation was conducted before the primary research to examine the suitability for modification and use with older adults (chapter two). A systematic review identifies risk factors for abuse subtypes (chapter three). The empirical research adopts a cross-sectional survey design, using online and hard-copy recruitment and data collection to examine mistreatment and poly-victimisation in older women and older men (chapter four), whilst the second part of the survey specifically examines older women's responses to questions about perpetrators of abuse alongside their responses to mistreatment (chapter five).

Results: ACE measures have good reliability and validity, therefore, the Revised Inventory of Adverse Childhood Experiences (Finkelhor, Shattuck, Turner & Hamby, 2015) was adapted to address elder mistreatment and poly-victimisation. The systematic review revealed victim characteristics

associated with abuse subtypes. The empirical research revealed that prevalence estimates and poly-victimisation varied according to mistreatment type and time period. For older women, pre-60 poly-victimisation increased the risk of experiencing any victimisation after 60 (OR=9.91, 95% CI: 3.06-32.16, p=.005), and within the past year (OR=18.44, 95% CI: 4.81-70.70, p<.001). No significant findings were established for older men; however, the sample size was small. Finally, when addressing perpetrators of older women's experiences of mistreatment, intimate partners were commonly identified, whilst help-seeking and responses varied according to abuse subtype. Findings are considered within the context of the socio-ecological framework.

Discussion: The systematic review demonstrated various risk factors for abuse subtypes, whilst identifying the need for standardised definitions and measurement tools in elder abuse research. Although additional research is needed to understand the cumulative lifetime impact of poly-victimisation, evidence indicates that pre-60 poly-victimisation increased the risk of experiencing victimisation after 60 years for older women. Findings indicate the severity of mistreatment and can contribute towards prevention and intervention. Variation in perpetrator and response strategies suggests the need for tailored interventions targeted at perpetrators and victims. Overall, findings demonstrate the complexity of elder mistreatment.

KEYWORDS: older adults, mistreatment, prevalence, poly-victimisation, risk factors, perpetrators, response strategies, socio-ecological framework.

Authorship Declaration

The independent review of studies within the systematic review (chapter three) was completed by Ee Ee Tan, to whom I am grateful.

The primary research project (chapter four and five) was presented at the British Psychological Society Annual Conference, University of Nottingham, May 2018. See Appendix 1 for a copy of the poster.

Additional Information

Information, consent and debrief sheets used within the primary research are included within the appendix (appendices 2-6). The research was reviewed and approved by The University of Nottingham's Faculty of Medicine and Health Sciences Ethics Committee. See Appendix 7 for the ethics approval letter.

Acknowledgements

Completing this doctorate has been a long and challenging process, and yet this part of the thesis has been the most difficult to write. There are many people I would like to thank for their continued support and help during this journey. First and foremost, I would like to express my appreciation and gratitude to my research supervisor's Dr Shihning Chou and Dr Miriam Stanyon. Thank you for your knowledge, expertise, and for sharing many insightful suggestions throughout this process. I am grateful for your continued feedback, guidance, and support. I would also like to thank the many supervisors I worked with whilst completing my placements. Each has helped inspire and guide me and have also offered practical support in relation to this thesis. A special thanks goes to my family, to whom I am incredibly grateful. Thank you for always loving, supporting and encouraging me. You have helped make this journey a better one with all the fun, laughter, encouragement, prayers, feasting, coffee times, holidays, and other practical support. Mum and Dad thank you for always being there when I need you. Even when you told me to 'stop crying… and cheer yourself up with a coffee', I knew you were always supporting me. Thanks to my wonderful sister and brother-in-law, Jess and Phil, for inspiring me in many ways, particularly in our love of food. You have helped make the past several years much more enjoyable. Thank you to my lovely little sister, Victoria, for always making me giggle, I know you can always put a smile on my face. I look forward to spending much more time with you all. My sincere thanks also go to my dear friend, Bex. For many years, you have continued to inspire, encourage, praise, and support me. Through all the tears, stress, and worry, you have constantly shown me that all things are possible. Without you, I would not have completed this doctorate. Thank you for being a true, generous, and loving friend. My thanks also go to many other friends and family members who have continued to support, encourage, and pray for me. I really appreciate your friendship. Finally, my utmost thanks go to the Lord, my Father. Even when things seemed impossible, You continued to equip, guide, and strengthen me. My trust and hope are always in You.

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Chapter One

Thesis Introduction

Elder abuse and neglect is a serious problem in the UK and internationally (World Health Organisation [WHO], 2019), requiring attention from health care, social service and legal systems, policymakers, and the public (Pillemer, et al., 2016). Although no globally accepted definition of 'elder abuse' exists, it is commonly defined as '*a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person'* (Centres for Disease Control and Prevention [CDC], 2020b; WHO, 2019; Action on Elder Abuse, UK, 2019). Elder abuse includes psychological, physical, sexual, and financial abuse, and can result from intentional or unintentional neglect (CDC, 2020b; WHO, 2019; Action on Elder Abuse, UK, 2019). Abuse and neglect of older adults is associated with devastating consequences, including health problems, injuries, hospital admissions and mortality, alongside significant societal costs (Carthy & Holt, 2016; Dong, 2015; Williams, et al., 2017). With an aging population, abuse and neglect of older adults is expected to become a bigger concern impacting millions, therefore warranting considerable attention as a serious public health problem (Pillemer, et al., 2016).

The issue of elder abuse is not a new phenomenon, with English doctors initially identifying the problem within medical journals during the mid-1970s (Penhale, 2003). However, in the UK it is only since 1988, where issues concerning elder abuse and neglect were raised at a national conference organised by the British Geriatrics Society, that the problem really began to be identified and explored (Penhale, 2019). Furthermore, it was not until the mid-1990s that there was any clear recognition from the UK government that elder abuse was a problem in need of attention (Penhale, 2003; 2019). Although research within the UK has been increasing, it is still relatively early in recognition of the problem and

development of responses to it (Penhale, 2008, 2019). Like other forms of family violence, such as child abuse and domestic violence and abuse (DVA), elder abuse and neglect are complex and sensitive areas to examine. Subsequently, there have been difficulties in establishing a theoretical foundation regarding elder abuse and neglect, further resulting from the lack of agreement and standardisation in definitions used to describe the problem (Penhale, 2008, 2019). Establishing an explanation for elder abuse and neglect is crucial for advancing science and practice, including development of preventative programmes and targeted interventions, alongside social policy (McDonald & Thomas, 2013). Although no overarching framework exists to explain elder abuse, there are many theories which describe various aspects related to elder mistreatment (McDonald & Thomas, 2013).

Theoretical Explanations

Theoretical explanations draw upon multiple disciplines, including child abuse and DVA, incorporating elements from various frameworks to theorise and explain the complexities of elder abuse (Roberto & Teaster, 2017; Teaster, 2017). Whilst researchers do not specifically apply theories of child abuse and DVA directly to older adult populations, these theories offer opportunities to consider factors that might be associated with elder abuse (Roberto & Teaster, 2017). For example, the intergenerational transmission of violence model, based on social learning theory (Bandura, 1977), posits that abusive acts are learned behaviours transferred from generation to generation through the process of observation, imitation and modelling (Jackson, 2018). Ample evidence exists linking experiences of abuse and/or exposure to family violence with perpetrating violence in adolescence and adulthood (Roberto & Teaster, 2017). Whilst there is no empirical evidence to support or refute the intergenerational transmission of violence theory regarding elder abuse, longitudinal research demonstrates that early exposure to abuse has lifelong relational consequences (McDonald & Thomas, 2013). Therefore, it is possible that elder abuse occurs as a result of the abusive individuals having learned to

use violence in an earlier familial context, either to resolve conflicts or to gain a desired outcome (Jackson, 2018).

Furthermore, the DVA literature has identified various demographic, psychological, and sociological risk factors for violence against women perpetrated by their male intimate partners which may contribute towards elder abuse theory development. Feminist-informed theories consider DVA to result from unequal and oppressive power relations between men and women, whereby perpetrators use a pattern of coercive tactics to gain and maintain power and control during a relationship (Burnight & Mosqueda, 2011; Jackson & Hafemeister, 2013; Roberto & Teaster, 2017). This theory has been extensively applied to explain DVA in younger adults, with Brandl (2000) adopting this to explain DVA amongst elderly couples (although it can also be applied when such traits describe an adult child or caregiver who has assumed responsibility for the elder person). Addressing old age and gender with reference to inequality allows researchers to examine the relationship between abuse and social and economic power (Roberto & Teaster, 2017), particularly since in many cultures, women are economically and socially disadvantaged compared to men (Abolfathi Momatz, et al., 2013). The perceived resource and power imbalance identified within violent relationships is evident in older women's reluctance to seek services, which is often rooted in humiliation, personal shame, fear of continued abuse, lack of financial resources to live independently, guilt about abandoning the abuser and the need to keep family problems private (Roberto, et al., 2013).

Additional theories developed to explain elder abuse include the caregiver stress theory (e.g. Pearlin, et al., 1990) which focuses on the role of stress and the burden of caregiving in elder abuse, whereby an overburdened caregiver who cannot cope with caring demands creates an environment for abuse (Abolfathi Momatz, et al., 2013; Roberto & Teaster, 2017). Social exchange theory proposes that two parties are both giving and receiving items of value from each other and that the interaction between both parties

benefit equally from the relationship (Abolfathi Momatz, et al., 2013). According to this theory, elder abuse may occur as a result of the victim's increasing dependence on the abuser. As individuals age, they become more powerless, vulnerable, and often dependent on family members for assistance which may increase their risk of abuse. Likewise, a caregiver may resent that the older person is completely dependent on them, whereby they may experience anger and frustration leading to abusive behaviour. The life course perspective (e.g. Elder, 1977), which is often used in conjunction with another theory or framework, focuses on the changing contexts of lives and their consequences for human development, which may lead to adverse experiences, affecting life trajectories and potentially increasing the risk of abuse (Roberto & Teaster, 2017). Several additional theories have been used to explain elder abuse, with a more detailed overview being provided by Roberto and Teaster (2017).

Finally, the socio-ecological framework developed by Bronfenbrenner (1977) was developed to capture various potential causes of elder abuse and integrate these into a wider framework. It proposes that individuals are embedded in a series of environmental systems that interact with one another and with the individual to influence personal development and experiences (Horsford, et al, 2010; Roberto & Teaster, 2017). This model has been applied in conjunction with DVA to encompass a diverse range of potential causes (Schiamberg & Gans, 1999). The multi-level framework addresses the 'microsystem' identifying the older adult victim, alongside those directly involved in their lives (perpetrators, extended family), and may consider factors such as the degree of dependency of the older adult and/or the degree of an adult child abuser's impairments (e.g. substance use; Jackson, 2018), alongside other risk factors or vulnerabilities associated with abuse. The 'mesosystem' refers to the relationships between those identified within the microsystem, specifically the victim-perpetrator relationship, and may consider factors such as the quality of the relationship between the older adult and the perpetrator. The 'exosystem' includes environments external to the older adult that indirectly influence experiences and may consider the degree of neighbourhood cohesion in

which the older adult lives (Jackson, 2018). Finally, the 'macrosystem' integrates contextual and cultural factors that influence the aetiology and maintenance of elder mistreatment, including society's broad ideological values, norms and cultural patterns, and may include factors such as ageism and social policies in place to support older adults (Jackson, 2018). The framework considers various factors creating the conditions in which abuse occurs (Teaster, 2017). Figure 1 presents a diagrammatic representation of the framework.

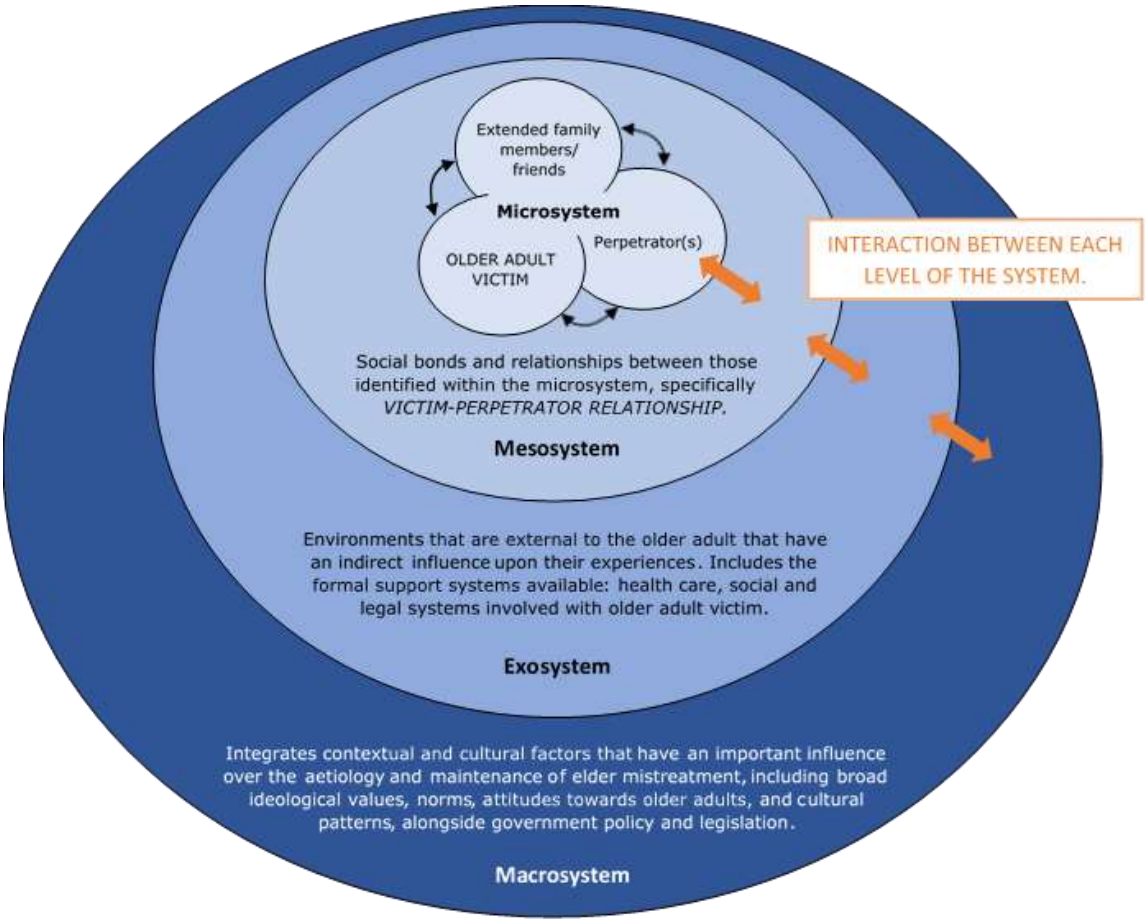


Figure 1. The multiple levels of the socio-ecological framework regarding elder mistreatment.

Risk Factors associated with Elder Mistreatment

Addressing the innermost system, the microsystem, allows for specific focus upon older adult victims and offers opportunities to consider the risk factors and/or individual characteristics that increase an older adult's likelihood of experiencing abuse. This is important since older adults are particularly vulnerable due to later life developmental changes (Hamby, et al., 2016). As individuals age, health needs become more complex with declining capacity and increased likelihood of disease (WHO, 2019). Issues like financial security, retirement, changes in living arrangements and bereavement are more prominent for older adults (Kane, et al., 2011; Knight & Hester, 2016). Social isolation and loneliness can significantly impact older adults wellbeing (Age UK, n.d). These factors affect life experience and alter the context in which elder mistreatment occurs. Research identifies risk factors increasing an individual's vulnerability for abuse, with poor physical and mental health, cognitive impairments and individual demographics being associated with various forms of abuse (Pillemer, et al., 2016). Additionally, individuals who are victimised once, are more likely to be victimised again (Finkelhor, et al., 2005b; Friedman, et al., 2017; Teaster, 2017) pertaining to poly-victimisation.

Elder Mistreatment and Poly-Victimisation

Another important aspect of the microsystem is the prevalence of mistreatment and multiple victimisations experienced by older adults. General population studies conducted worldwide report elder abuse prevalence between 3.2% and 27.5% (Rosay & Mulford, 2016). Despite variations, findings indicate that mistreatment is relatively common. However, evidence further suggests that many victims will experience multiple forms of abuse, or 'poly-victimisation'. Late life poly-victimisation is defined by Ramsey-Klawsnik and Heisler (2014):

> *"Poly-victimisation in later life occurs when a person aged 60 or older is harmed through multiple co-occurring or sequential types of elder abuse by one or more perpetrators, or when an older adult*

experiences one type of abuse perpetrated by multiple others with whom the older adult has a personal, professional, or care recipient relationship in which there is a societal expectation of trust" (p. 5).

Poly-victimisation is a recently adopted term within the elder abuse field, having been extensively explored in children and young adults, and defined by Finkelhor, Turner, et al. (2011). Like poly-victimisation in later life, childhood poly-victimisation occurs when a child experiences multiple victimisations of different kinds. Two cross-sectional national telephone surveys from the United States; the National Survey of Children's Exposure to Violence and Developmental Victimisation Survey, adopted the Juvenile Victimisation Questionnaire to measure victimisation in children and youth (Finkelhor, Turner, et al., 2011). Both demonstrated that children who experience several forms of victimisation are at increased risk of mental and physical health problems. Furthermore, exposure to even one type of violence, increases the risk of additional victimisation (Finkelhor, Turner, et al., 2011), triggering a pattern of ongoing/escalating victimisation and complex trauma (Teaster, 2017). Additional measures assessing early experiences include the Adverse Childhood Experiences (ACE) study questionnaire and Revised Inventory of Adverse Childhood Experiences (R-ACE; Finkelhor, et al., 2015), a tool that is modified and used within the current research to address elder mistreatment and poly-victimisation.

Similarly, findings from DVA research have established that earlier victimisation results in long-lasting and escalating late life effects, including cognitive impairments, and long-term consequences such as psychological distress and physical injury, with the literature demonstrating that exposure to multiple forms of DVA results in adverse physical and mental health effects for older adults (Teaster, 2017). The research and practice literature addressing child poly-victimisation, alongside research addressing the impact of multiple forms of DVA, can inform the elder mistreatment field (Teaster, 2017). Knowledge about the effects of trauma and mistreatment within children and younger adults helps understand the cumulative trauma

experienced by older adults. Like their younger counterparts, older victims past traumas may affect their current presentation (Teaster, 2017). Cumulative childhood trauma has significant effects fifty years later, including lifetime adversities, psychological distress, functional impairment, and post-traumatic stress disorder (Teaster, 2017). Furthermore, ACEs are linked with frailty in older age (van der Linden, et al., 2018), with research highlighting the escalating late life effects resulting from earlier victimisation, demonstrating poly-victimisation across the lifespan. Although most poly-victimisation research concerns young people, it does occur in later life and/or continues throughout the lifespan, therefore increased attention to older adult experiences is important.

Historically, research and investigations into elder abuse have not explored individual forms of abuse (Heisler, 2017). Therefore, limited data is available regarding elder poly-victimisation which may exacerbate adverse outcomes compared to single victimisation (Williams, et al., 2017). Examining single victimisation may not capture the complexities of elder mistreatment and may lead clinicians and researchers to inappropriately attribute negative adversities to a single victimisation, rather than the cumulative burden of multiple victimisations (Williams, et al., 2017). Examining the lifetime burden of single and multiple victimisations may offer greater understanding of older adults' experiences across the lifespan, subsequently contributing towards prevention and intervention.

Perpetrators of Elder Mistreatment

When addressing the microsystem and mesosystem, knowledge about elder abuse perpetrators and their relationship to the victim remains a major gap within the literature (Pillemer, et al., 2016). There appears to be a singular focus on victims, despite the rich history of perpetrator research within the forensic and criminal justice literature regarding other crimes against older adults (Jackson, 2016). Not only does exclusion of perpetrators from elder abuse research overlook their role in maintaining abusive relationships, acting as a risk factor for abuse, it also contributes to a continued lack of

understanding regarding who perpetrates abuse (Jackson, 2016). The victim-perpetrator relationship is an important aspect of poly-victimisation, whereby an older adult may experience multiple, co-occurring forms of abuse by one or more perpetrators, or a single form of abuse by multiple perpetrators. Again, limited evidence regarding perpetrators restricts understanding of elder poly-victimisation therefore, impeding the identification, potential prosecution, and subsequent intervention necessary for perpetrators. Since intervention and prevention depends upon identification of victims and perpetrators, exploration of possible perpetrators is vital (Rosay & Mulford, 2016). Perpetrators, who are often known and trusted by the older adult, can include intimate partners, family members, friends, neighbours, and caregivers (e.g. Ramsey-Klawsnik, 2017). Stranger-perpetrated abuse should also be considered (Hamby, et al., 2016), particularly as this is likely to contribute towards experiences of mistreatment across the lifetime through exposure to community violence.

Help-Seeking, Responses, and Intervention

Help-seeking, community responses and intervention are important aspects of elder mistreatment and poly-victimisation, relating to each level of the socio-ecological framework. Help-seeking and community responses may include victims contacting the Police and/or obtaining support from family/friends. Meanwhile, interventions may include nationally/locally delivered support groups, age-appropriate helplines, and public education campaigns. Understanding elder abuse victim help-seeking and reporting is challenging; evidence suggests that mistreatment events are underreported in this age group (Hernandez-Tejada, et al., 2013), with older adults being under-represented across service provisions, subsequently contributing towards limited knowledge about their needs (Wydall & Zerk, 2017).

Psychological models explain help-seeking behaviour amongst different populations, including the Theory of Planned Behaviour (Ajzen, 1991) which posits that attitudes towards the behaviour, subjective norms and perceived

behavioural control contribute towards an individual's behavioural intentions and behaviours. Furthermore, the Behavioural Model of Health Services Use (BMHSU) was designed to predict and explain the use of formal health services including help/care-seeking (Burnes, et al., 2018). The model proposes that service use, for example reporting to the Police, is predicted by a person's predisposing characteristics (e.g. demographics, sociocultural/status inequalities that may limit/enhance access to services), enabling resources (e.g. personal, interpersonal, social and community resources facilitating/impeding service use) and level of need (e.g. nature and magnitude of the presenting problem). Application of each dimension must consider characteristics associated with the victim, perpetrator, and victim-perpetrator relationship to fully understand help-seeking facilitators/barriers (Burnes, et al., 2018).

Barriers to help-seeking or reporting abuse reflect several dimensions outlined by the BMHSU model. Potential barriers include the increasing complexity of the victim-perpetrator dynamic in later life (Wydall & Zerk, 2017). Victim dependency on perpetrators (and vice-versa) are recognised risk factors (Yan & Tang, 2004). With service responses aimed at separating the victim and perpetrator, this may impact the ability to maintain relationships, particularly if the perpetrator is an intimate partner or adult child. This may lead to loss of access to family members and social isolation (Flueckiger, 2004). Maintaining social networks and proximity to family and friends is desired by older adults (Age UK, 2015), therefore, service responses that reduce these networks may not be desirable, particularly since developing social networks may be more difficult for older people than younger groups (Wydall & Zerk, 2017).

Additional barriers may include feelings of hopelessness (Rogers, 2016) or reluctance to seek help due to a strong sense of self-reliance when managing difficult family situations (Wydall & Zerk, 2017), both of which are particularly prominent for older women. Furthermore, financial dependency upon husbands/partners which reflects the accepted socio-

cultural norms of previous generations (Wydall & Zerk, 2017) presents additional barriers to help-seeking for older women. Therefore, understanding responses to mistreatment is important, particularly since these may differ to younger generations, policy makers and society. This may provide additional knowledge regarding effective responses and interventions for elder abuse.

The Role of Gender within Elder Abuse

Whilst it is important for research to examine risk factors for, and prevalence of abuse, alongside exploration of perpetrators and help-seeking responses for abuse, it is also vital to consider the role of gender within violence and elder abuse research. The way in which gender is examined within violence research is important, with Walby and Towers (2017) identifying three approaches to gender within surveys of violence. Firstly, some treat gender as not important, or endeavour to establish gender neutrality which makes gender rarely seen or invisible. The second approach is to focus upon women, collecting data only about women's experiences of violence (Walby & Towers, 2017). Although this raises awareness of the gendered nature of violence, it does not allow for the comparison of the distribution of violence against women and against men (Walby & Towers, 2017). Finally, the third approach is known as gender mainstreaming, which addresses the gender dimension within all surveys and official statistics produced using such data which demonstrates the proportion of violence that is against women and against men, allowing for understanding of their different rates of change (Walby & Towers, 2017).

Seemingly, gender is examined in different ways within violence research, with different fields also approaching gender differently. Although family violence and DVA researchers recognise gender as an important variable of analysis, the elder abuse literature is often dominated by consideration of definitions and types of abuse, with little recognition that elder abuse reflects the gendered nature of society's attitudes, behaviours and expectations (Weeks, et al., 2018). Many elder abuse researchers suggest

that more emphasis should be given to the nature of power within relationships (Penhale, 2003), particularly as elder abuse research has frequently ignored the unique experiences of women (Wilke & Vinton, 2003; Weeks, et al., 2017). Although it is generally understood that both men and women experience abuse, most elder abuse victims are women (Penhale, 2003; O'Keeffe, et al., 2007; Yon, et al., 2017b). This may be due to women sustaining more serious injuries, resulting from males being more physically violent than women. Such injuries result in women presenting for treatment and coming to the attention of professionals (Penhale, 2003).

Meanwhile, although perpetrators vary according to mistreatment type, US and UK research has frequently identified partners or other family members as perpetrators (Amstadter, et al., 2010; O'Keeffe, et al., 2007), and as with other forms of familial violence, most perpetrators are men (Penhale, 2003). For example, O'Keeffe, et al. (2007) reported that abuse was more commonly perpetrated by men (74%) than women (26%). Women in many societies experience significant inequalities that make them vulnerable to poverty, poor mental and physical health, and abuse and violence (Yon, et al., 2017b). Therefore, examining the oppression of women from the feminist perspective, whereby women have been socially, economically, and politically controlled by men throughout history, is important (Penhale, 2003; Yon, et al., 2017b). This control is frequently seen in male violence towards women, akin to abuse between partners in a relationship. Therefore, it is imperative that the complexities related to the abuse of older women are explored, with consideration of the similarities and differences that exist between elder abuse and DVA.

Elder Abuse and Domestic Violence and Abuse: Similarities and Differences

Exploring the similarities and differences between elder abuse and DVA allows for greater understanding about these concepts, whilst also contributing towards protection, prevention, and intervention. There are notable similarities between elder abuse and DVA. As indicated by previous research, a large proportion of elder abuse is abuse between partners where

the predominant dynamic is that of DVA occurring in later life. Elder abuse and DVA consider the abuse of adults who are usually linked through emotional, and sometimes biological, relationships. There appear to be strong similarities regarding the impact of different forms of abuse on victims, including self-blame, associated stigma, reduced self-esteem and reduction in general coping skills, alongside increased depression, feelings of dependence and increased sense of isolation (Penhale, 2003). These can be seen in victims of most forms of familial violence and may relate to the inequalities of power within relationships which lead to the development and maintenance of abusive situations (Penhale, 2003). Likewise, similar characteristics, including substance use problems, psychiatric histories, personality difficulties and/or interpersonal relationship problems, have been identified within perpetrators for elder abuse and DVA. Perpetrator risk and negative attitudes towards victims are also associated (Penhale, 2003; Liu, et al., 2017; Pillemer, et al., 2016).

The theoretical frameworks developed to understand possible causes of different forms of abuse are similar. However, this may be a result of attempts to apply previously proposed models for other forms of familial violence to elder abuse as previously identified (Penhale, 2003; Abolfathi Momtaz, et al., 2013). Meanwhile, the challenges in establishing interventions for both forms of abuse are similar, and this includes the issues related to help-seeking behaviours previously identified. Societal stigma regarding abuse is likely to lead to victims being reluctant to accept or seek help. Victims may feel intimidated and fearful of their abusers, with their powerless positions making it difficult to empower any victim to leave or change an abusive situation (Penhale, 2003). Finally, research demonstrates that DVA involves male violence towards females (and often their children), with most elder abuse victims also being female, demonstrating an additional similarity between the two forms of abuse.

Nevertheless, there are several differences between elder abuse and DVA. Older women have been socialised with more traditional attitudes and

values, particularly regarding gender roles, marriage, and family (Zink, et al., 2003). For example, they have been taught to be submissive to their husbands/partners, have developed a sense of privacy about family matters, alongside a strong commitment to family loyalty, whilst also having grown up in an era where divorce was taboo (Straka & Montminy, 2006). All these factors make it more difficult for older women to seek help or leave abusive situations (Straka & Montminy, 2006). The financial barriers that keep younger women in abusive relationships may be even greater for older women; many of whom have not had paid employment or training and would struggle to obtain employment due to ageist barriers and discrimination (Penhale, 2003; Straka & Montminy, 2006).

Furthermore, older women are more likely to have health and functional impairments that increase their dependence on others for care, including abusive partners, making it difficult to seek help or leave. Likewise, some older women may provide care for their abusive partners, and due to their strong care ethic, it can become increasingly difficult for them to leave dependent, abusive husbands/partners (Straka & Montminy, 2006). Older women may not recognise they have choices and are resigned to living in situations of long-standing abuse. In later life, older adults' social networks often reduce through death of family and friends, and as such an abusive partner may be the only person left in an older woman's life (Straka & Montminy, 2006).

Finally, there are considerable differences with regards to identification of elder abuse and DVA which has resulted in varying strategies for prevention, protection of, and provision for, abuse victims (Penhale, 2003). As previously addressed, initial identification of the two forms of abuse differ; one is grounded in the gender perspective but does not account for age (e.g. feminist approaches), whilst the other is grounded in an aging perspective but does not account for gender (e.g. elder abuse from medical perspectives; Penhale, 2003; Straka & Montminy, 2006). Older women are located at the intersection of these two dimensions of age and gender

(Straka & Montminy, 2006). As a result of this, treatment and intervention approaches differ, whereby for elder abuse there is an assumption that it is preferable for the older individual to remain living in the home, with the necessary support and assistance to live a life free from abuse, whilst the goal of interventions for DVA is to empower the victim to enable them to leave the abusive situation (Penhale, 2003).

It is evident that being female acts as a risk factor for abuse not only in older adulthood, but also throughout the lifetime, with research identifying that more women become victims of abuse than men. Furthermore, perpetrators are often identified to be intimate partners. Help-seeking and response strategies appear to be complex and often dependent upon the victim-perpetrator dynamic, whereby older women's experiences across the lifespan are likely to have shaped and contributed towards their desire to seek help in times of need.

Aims of the Thesis

The thesis aims to examine elder abuse and to better understand older adult experiences of various forms of abuse, including emotional/psychological, financial, physical, and sexual abuse, and neglect. In order to do so, the thesis initially aims to examine the suitability of adapting a measure previously used to address childhood poly-victimisation to measure mistreatment and poly-victimisation experiences in an older adult population, since there are currently no tools available to measure elder poly-victimisation. Furthermore, older adults experience multiple changes in later life, which may impact their vulnerability to experiencing different forms of abuse. Therefore, the thesis aims to identify risk factors and individual characteristics associated with specific abuse subtypes. The thesis further aims to examine the prevalence of mistreatment and poly-victimisation experiences in older adults across the lifespan, since limited research has addressed this concept in later years. Finally, since older women are more likely to become victims of abuse compared to older men, with males most often being identified as perpetrators, the thesis attempts

to examine perpetrators of mistreatment specifically towards older women, whilst also examining older women's help-seeking and response strategies.

Overview of the thesis

The poly-victimisation framework can fill many gaps within the elder mistreatment literature. However, the lack of comprehensive measures for elder mistreatment, particularly those capturing the full range of victimisations and their interconnections, creates a barrier in extending this framework into late adulthood (Sooryanarayana, et al., 2013; Hamby, et al., 2016). Therefore, before commencing the primary research, a tool was developed using items from the R-ACE (Finkelhor, et al., 2015), which addresses childhood and adolescent poly-victimisation, to examine older adults' mistreatment and poly-victimisation. Chapter two provides an overview and psychometric properties of tools previously used to measure elder abuse alongside consideration for their limited suitability within the research, for example tools are not specifically developed for older adults, or do not address all abuse subtypes necessary to understand poly-victimisation. The chapter provides a critique of ACE measures, addressing psychometric properties, reliability and validity, application to the childhood trauma and maltreatment field and appropriateness for research. ACE measures appear to be psychometrically valuable when used in various populations and contexts, having good/excellent reliability and validity. Therefore, adapting the R-ACE tool was deemed appropriate for the older adult population. Cronbach's α for all mistreatment subtypes within the adapted scale were 0.90, representing an acceptable level of reliability (Ford, et al., 2014).

Chapter three presents a systematic review, aimed at identifying and synthesising primary research addressing factors associated with elder abuse subtypes. According to the socio-ecological framework, identifying risk factors located within the immediate systems that most directly influence older adult experiences is necessary, particularly since identification of these factors can contribute towards improved detection,

prevention, and intervention for elder abuse. Risk factors are found at each level of the socio-ecological framework, for example individual characteristics of the older adult (mental and physical health problems, cognitive impairments and individual demographics, e.g. gender; microsystem); perpetrator risk factors (substance use, caregiver burden, perpetrator-victim dependency and negative attitudes towards victims; mesosystem); alongside environmental factors (living arrangements, socio-economic status, formal support; exosystem and macrosystem). However, research predominantly focuses on victim vulnerabilities, with limited evidence regarding perpetrators of abuse subtypes. Therefore, focusing specifically upon individual victim characteristics, the systematic review identifies significant factors including health problems, cognitive impairments and individual demographics which vary according to abuse subtype.

Chapter four presents the first part of the primary research. Limited research has explored poly-victimisation within older adult populations, therefore, focusing upon the microsystem, older women and older men's experiences of mistreatment and poly-victimisation are addressed to better understand the extent of the problem. In doing so, the research further examines any possible differences between gender (e.g. Walby & Towers, 2017), since the literature consistently demonstrates that older women experience more abuse than older men (Penhale, 2003, Allcock, 2018). The research adopts a cross-sectional survey design, using online and hard-copy recruitment and data collection in a sample of older adults aged ≥60 years. Although 65 years of age has traditionally been considered the start of older age in the UK most likely due to being the official retirement age (e.g. NHS, 2020; ONS, 2019a), and therefore used as the age range for much UK-based research (e.g. O'Keeffe, et al., 2007), other organisations, including the CDC (2020b) consider an older adult to be anyone aged 60 or older. Similarly, the late-life poly-victimisation definition provided by Ramsey-Klawsnik and Heisler (2014) describes adults aged 60 or over. Finally, since the Crime Survey for England and Wales (CSEW) have only recently expanded the age range to include individuals over 59 years old when

examining DVA, there is limited data availability (ONS, 2018). Therefore, limited data captures older adults' experiences of abuse, including DVA, between aged 60 and 65 in the UK. Considering this, the current research obtains data from a sample of older adults aged ≥60 years.

Following exploration within the psychometric critique, an adapted version of the R-ACE is used to obtain a UK prevalence estimate of various forms of mistreatment experienced by older women and men across the lifetime; prior to 60 years, since 60, and within the past year. It examines poly-victimisation by establishing whether older women and older men have experienced multiple victimisations, including emotional/psychological abuse, financial exploitation, and neglect during their lifetimes. Specifically, this considers the experience of multiple co-occurring forms of abuse and the lifespan burden of multiple victimisations.

Chapter five presents the second part of the primary research (using methods described in chapter four). Due to the small number of males within the sample, some statistical analyses could not be conducted and/or provided limited results, reducing the conclusions that could be drawn. Furthermore, it is well documented that women are more likely to become victims of abuse, often by male perpetrators (Penhale, 2003; O'Keeffe, et al., 2007; Yon, et al., 2017b). Therefore, this chapter focuses solely upon the female subsample to examine perpetrators of abuse towards older women, particularly since the systematic review identified that limited evidence exists regarding perpetrators, specifically perpetrator risk factors and the victim-perpetrator relationship. This addresses the microsystem and mesosystem in identifying the victim-perpetrator relationship and attempting to understand whether abuse is perpetrated by single or multiple perpetrators relating to poly-victimisation. Finally, the research attempts to understand how older women responded to previous mistreatment, and how they would consider responding in future. This is particularly important since response strategies require attention from all levels of the socio-ecological framework.

The final chapter aims to consolidate key findings from the thesis, identifying future research recommendations and addressing theoretical and practical implications.

Chapter Two

Psychometric Critique

An Exploration of Measurements for Elder Mistreatment and Critique of Adverse Childhood Experience Measures

Abstract

Although several tools measure elder abuse, these have different purposes, content, data collection methods, alongside reliability and validity. No standardised tools exist to measure elder poly-victimisation. Therefore, previously used elder abuse measures were not suitable for the primary research. Instead consideration of tools that have addressed victimisation and poly-victimisation within different populations was necessary, specifically the ACEs framework, to develop a tool for use with older adults. The review describes various elder abuse measures alongside ACE measures, addressing psychometric properties, application, and appropriateness for research. Finally, it describes why the ACE framework was used as a basis for the primary research.

KEYWORDS: elder abuse measures, poly-victimisation, Adverse Childhood Experiences, critique, psychometric, reliability, validity.

Introduction

Measuring elder abuse is challenging, as definitions and conceptualisations of what this constitutes varies across disciplines, countries, and cultures. Various tools have been used and/or adapted to address elder abuse, including the Conflict Tactics Scale (Straus, 1979); Hwalek-Sengstock Elder Abuse Screening Test (Neale, et al., 1991); American Medical Association Screen for Various Types of Abuse or Neglect; Older Adult Psychological Abuse Measure (OAPAM), amongst others. However, each has different purposes (e.g. screening for at-risk individuals), content (e.g. abuse subtypes addressed), data collection methods (e.g. self-report, interview, informants) and varying reliability and validity (Abolfathi Momatz, et al., 2013). Additionally, no standardised tools exist to measure elder poly-victimisation, nor poly-victimisation across the lifespan into older adulthood. Therefore, consideration of tools used within other populations was necessary to establish how to address elder mistreatment and poly-victimisation across the lifespan within the primary research.

The poly-victimisation framework predominantly focuses on children and adolescents. Evidence suggests that childhood experiences impact future violence victimisation and perpetration, health, well-being, and opportunity (CDC, 2020a). ACEs are potentially traumatic events that can have negative long-lasting effects, including physical, sexual, emotional/psychological abuse and neglect (WHO, 2017a), living in developmentally harmful environments, such as witnessing DVA; household dysfunction; and community violence (Boullier & Blair, 2018; WHO, 2018). Research demonstrates that children who experience victimisation are vulnerable to experiencing further victimisation, e.g. poly-victimisation, and will present with substantial traumatic symptomatology compared to single victims (Finkelhor, Turner, et al., 2011). Various tools assess a range of childhood victimisations; Juvenile Victimisation Questionnaire (JVQ; Finkelhor, et al., 2005), Childhood Trauma Questionnaire (CTQ; Pennebaker & Susman, 1988) and Adverse Childhood Experiences Study Questionnaire (ACE-SQ; Felitti, et al., 1998).

The review provides an overview of tools which address elder abuse. Psychometric properties, limitations, and their suitability for use within the primary research are discussed. Since no tools address elder poly-victimisation, consideration of tools previously addressing this concept within different populations was necessary. Therefore, psychometric properties of various ACE measures are reviewed, including reliability and validity, application to the childhood trauma and maltreatment field, and appropriateness for research. Criticisms and limitations are addressed.

Overview of Elder Abuse Measures

Conflict Tactics Scale (CTS)

The CTS (Straus, 1979 and CTS-2; Straus, et al., 1996) is a self-report scale measuring the use of reasoning, verbal aggression, and physical violence for resolving family/interpersonal conflict. Although the CTS has demonstrated reliability (Cronbach's α=0.79-0.95) and validity (Straus, 1990), it is not specifically developed for use with older adults; therefore, it is limited within this context (Abolfathi Momtaz, et al., 2013).

Hwalek-Sengstock Elder Abuse Screening Test (HSEAST)

The HSEAST (Neale, et al., 1991) identifies older adults at risk of DVA. Whilst it has demonstrated good test-retest reliability and acceptable internal consistency (Cronbach's α=0.63), it is limited due to its high false negative rate (Neale, et al., 1991; Abolfathi Momtaz, et al., 2013). Since the HSEAST acts as a screening tool and does not explicitly address all abuse subtypes necessary to understand the prevalence of various forms of elder mistreatment, it was not deemed suitable for use within the primary research.

American Medical Association Screen for Various Types of Abuse or Neglect (AMA-SVTAN)

The AMA-SVTAN is a self-report questionnaire addressing physical, psychological, financial abuse, and neglect. Although demonstrating excellent test-retest reliability and good internal consistency (Cronbach's α=0.73), it is typically used within clinical settings, whereby clinicians' interview and examine older adults to diagnose abuse. It does not address sexual abuse and other victimisations. Therefore, this was not appropriate for the primary research.

Suitability

Although additional measures exist, these either address a single abuse type (e.g. OAPAM), act as screening tools, or require trained interviewers. Subsequently these were unsuitable for use within the primary research, which aims to address prevalence of various forms of mistreatment, whilst examining how vulnerability to abuse in later life can be linked to earlier victimisation (Hamby, et al., 2016). To identify the full range of victimisations experienced by older adults, including exposure to violence, financial exploitation alongside isolation and rejection, a specific tool was required. Therefore, ACE items were used as a basis for the research.

Overview of ACE Measures

Original Adverse Childhood Experiences Study

A widely cited example of the poly-victimisation approach is the ACE study, originally conducted by Felitti, Kaiser Permanente and CDC between 1995-1997 with two waves of data collection on over 17,000 participants (Finkelhor, Shattuck et al., 2011). Findings demonstrated that as ACEs increased, the risk for various outcomes increased, including health problems (heart disease, Dong, et al., 2004; substance abuse, Dube, et al., 2003), risk for DVA, sexual violence, suicide (Dube, et al., 2001), and poor academic/work performance (CDC, 2020a; Felitti, et al., 1998).

The ACE-SQ retrospectively and prospectively assesses the long-term impact of childhood abuse and household dysfunction on various outcomes in adults of different ages. It was constructed using questions from previously published surveys, including the CTS defining childhood physical and psychological abuse, and violence against the respondent's mother; Wyatt's Sexual History Questionnaire (Wyatt, 1985) defining childhood sexual abuse; the National Health Interview Survey (1988) defining childhood exposure to substance abuse, whilst various health surveys provided health-related questions (Felitti, et al., 1998). The first wave addressed psychological, physical, and sexual abuse, exposure to household dysfunction during childhood, including substance abuse, mental illness, violent treatment of mother/stepmother, parental separation/divorce, and criminal behaviour (Felitti, et al., 1998). The second wave included emotional and physical neglect (Dong, et al., 2004).

ACE measure norms

Since ACEs encompass various childhood traumas, measurement is often unique to experiences and contexts of the population of interest. As such no consistently used ACE measurement exists. Instead, researchers use ACE-SQ items alongside other tools; therefore, no official norms are reported. Research has been conducted on children, adolescents, adults including older adults, institutionalised youths, amongst others, and predominantly within the United States (CDC, 2020a; Ford, et al., 2014) and other high-income countries, with some research in low- and middle-income countries (Raleva, et al., 2013; Kazeem, 2015).

Alternative and Adapted Scales

Behavioural Risk Factor Surveillance Systems (BRFSS) Adverse Childhood Experience Module

The CDC annually administers 11 items adapted from the ACE-SQ to adults over 18 years (with a subsample of ≥60s) who participate in the BRFSS survey (Ford, et al., 2014). Nine types of childhood experiences are addressed, including abuse subtypes, household member substance use

and mental illness, witnessing DVA, parental separation/divorce, and imprisoned family members (Ford, et al., 2014).

Adverse Childhood Experiences International Questionnaire (ACE-IQ)

The ACE-IQ (WHO, 2018) measures ACEs and risk behaviours in later life in adults over 18 years. Items cover family dysfunction, including mistreatment by parents/caregivers; peer violence; and witnessing community violence (WHO, 2018). The first version was formulated after testing a previous version for comprehensibility and acceptability in various countries, including China, Philippines, and Vietnam. It is currently being validated through trial implementation as part of broader health surveys (WHO, 2018). Therefore, limited psychometric data exists, except for Kazeem (2015) reported below.

Revised Inventory of Adverse Childhood Experiences (R-ACE)

Finkelhor et al. (2015) proposed a revised version of the ACE-SQ. Whilst the ACE-SQ is predictive of negative outcomes, it was not developed using any systematic process. Finkelhor, et al. (2015) suggested other adversities causing negative developmental effects, encompassing a wider range of victimisations. Furthermore, since most ACE literature is based on adult retrospective assessment, Finkelhor et al. (2015) sampled youth aged 10-17 years. Although additional measures added significantly to the prediction of later life problems, limitations regarding reliability of young people exist, whilst there is question over how helpful this information is since the sample were young and may yet develop many conditions that ACE research is concerned about.

Evaluation of ACE Measures

Currently, there is no consensus on a framework for evaluating ACE measures, predominantly because ACE measurement is only recently being used in clinical practice where standardisation of methods is more critical (Bethell, et al., 2017). Therefore, psychometric data is limited (Ritacco &

Suffla, 2012). However, reliability and validity information are accessible for various ACE measures.

Reliability

Reliability refers to the stability or consistency of psychometric test scores, specifically that psychometrics accurately measure the phenomenon being measured. Reliability includes internal reliability, whether a measure is consistent within itself, and external reliability, whether a measure varies from one use to another.

Researchers need to know the reliability of individuals responses to questions regarding early experiences, particularly when relying on retrospective data (Dube, et al., 2004), which child and elder mistreatment research often relies upon. A useful measure for reliability is provided by kappa; the proportion of agreement corrected for chance (Fleiss & Cohen, 1973), with values ≤.40 representing poor agreement, between .40 and .75 representing good agreement and ≥.75 representing excellent agreement (Fleiss, 1981; cited in Dube, et al., 2004).

Test-Retest Reliability

Test-retest reliability examines whether an instrument measures the same responses each time it is used with the same conditions and respondents (Dube, et al., 2004). Given that many ACE measures use retrospective reports, it is expected that test-retest reliability would indicate that measures will lead to consistent responses (Murphy, et al., 2014). Dube, et al. (2004) used kappa to assess test-retest reliability of the ACE-SQ during both waves using 658 participants with a mean age of 64 years. Kappa coefficients for emotional abuse was .66 (95% confidence interval; CI, .55-.76), for physical abuse was .55 (95% CI, .47-.63) and for sexual abuse was .69 (95% CI, .61-.77). Kappa coefficients for growing up with household substance abuse was .75 (95% CI, .68-.81), for mental illness was .49 (95% CI, .42-.61), for witnessing DVA was .77 (95% CI, .68-.85), for imprisoned household member was .46 (95% CI, .27-.65), for parental

separation/divorce was .86 (95% CI, .81-.91). Additionally, the weighted kappa coefficient for the ACE score was .64 (95% CI, .36-.60) indicating good test-retest reliability (Dube et al., 2004). Previous studies demonstrate that retrospective reports of ACEs have good to excellent test-retest reliability (Murphy, et al., 2014) like Dube, et al. (2004), although these studies used different instruments. Meyer, et al. (1996) reported kappa values of .63 and .82 for physical and sexual abuse respectively using a standardised questionnaire. The results provide an overall indication of good to excellent reliability in the reports of ACEs during adulthood and older adulthood, therefore providing reason to consider and identify the types of victimisations experienced prior to reaching older adulthood to further understand interconnections between victimisations across the lifespan.

In contrast to assessing adults, Pinto, et al. (2014) sampled 136 youths, with 79 participating in a second evaluation using the Portuguese ACE-SQ. Intraclass Correlations Coefficient (ICC; McGraw & Wong, 1996), which was considered the most appropriate measure for repeated measurements on a continuous scale (Pinto, et al., 2014), estimated the test-retest reliability. ICCs ≤.50 are interpreted as having poor consistency, between .50 and .80 as adequate, and ≥.80 as excellent consistency (Blacker, 2005; cited in Pinto, et al., 2014). Findings from self-administered questionnaires demonstrated ICC values ≥.65, representing good to excellent agreement across all 10 ACE categories (Pinto, et al., 2014), greater than those established by Dube et al. (2004). Mersky, et al. (2017) further researched whether adult reports of ACEs are reliable, demonstrating that 10 conventional and seven expanded ACEs (e.g. homelessness) showed acceptable test-retest reliability, consistent with Dube, et al. (2004) and Pinto, et al. (2014).

Internal Consistency

Internal consistency is a measure of reliability establishing whether items within a psychometric tool jointly measure the same construct (Henson,

2001). Cronbach's alpha (Cronbach, 1951) estimates internal consistency of tools, providing an overall measure of interrelatedness among items within each dimension on a scale. Alpha coefficients range from 0 to 1. Higher values reflect greater reliability, ≥.60 reflects acceptable reliability (Ford, et al., 2014). BRFSS findings demonstrate that scales were related with Cronbach alpha scores of .70 for physical/emotional abuse, .61 for household dysfunction, .80 for sexual abuse, and overall ACE of .78, indicating psychometrically reliable usage (Ford, et al., 2014).

Meinck, et al. (2017) report internal consistency of an 8-item, retrospective self-report questionnaire; the Adverse Childhood Experiences-Abuse Short Form (ACE-ASF) administered to Romanian students. Cronbach alpha was .57 for the physical/emotional abuse subscale indicating poor internal consistency, .83 for the sexual abuse subscale and .71 for the total scale, both indicating adequate to good internal consistency. Confidence intervals are not reported. Although inconsistent with Ford, et al. (2014), discrepancies may be related to differences in item phrasing (Meinck, et al., 2017). Generally, internal consistency is high across studies in different cultural contexts, when using different ACE measures across age groups (Meinck, et al., 2017), providing further evidence for the suitability of adapting an ACE measure to assess elder mistreatment and poly-victimisation.

Inter-rater Reliability

Inter-rater reliability quantifies the closeness of scores assigned by raters assessing the same participants. The closer the scores, the higher the reliability of data collection methods (Gwet, 2008). With ACE items being adapted for different research designs, those reporting ACEs may differ, e.g. retrospective data from adults or reports from children/adolescents. Experiences of violence are reported differently by different individuals. The National Survey of Child and Adolescent Well-Being, a longitudinal, representative study of children who have been the subject of a child welfare investigation, collected information from children, caregivers, and

caseworkers (Bledsoe, 2018). Various ACE items were addressed, with inter-rater agreement and reliability being calculated. Children, caregivers, and caseworkers differentially reported the number of ACEs; kappa coefficients were in the extremely low range with caseworker-caregiver agreement being the highest at .29, suggesting poor inter-rater reliability between different individuals (Bledsoe, 2018).

Validity

Validity refers to the degree to which a psychometric tool measures what it intends to measure (Winter, 2000).

Predictive Validity

Predictive validity establishes whether a measure accurately predicts a future outcome. The ACE-SQ predicts negative outcomes, however, Finkelhor et al. (2015) demonstrated that four original ACE items no longer significantly predicted physical/psychological problems, including parents' divorce/separation, mother treated violently, family substance misuse, and parental imprisonment. Instead additional adversities, including peer victimisation, isolation, rejection, exposure to community violence, and low socio-economic status, improve overall statistical prediction (Finkelhor, et al., 2015). Evidently, ACE items are generally predictive of negative outcomes later in life; however, future research should consider a broader range of adversities, which may be dependent upon cultural and contextual differences.

Concurrent Validity

Concurrent validity establishes whether the results of a measure correspond with those of a previously established measurement for the same construct. Whilst research on concurrent validity of ACE measures is limited, it has been assessed through associations between the ACE-ASF physical/emotional and sexual abuse constructs and outcomes identified in previous reviews and meta-analyses of quantitative research (Meinck, et al., 2017). Physical/emotional abuse and sexual abuse constructs were

associated with reduced general health-related quality of life, life satisfaction, increased bullying victimisation, and health complaints, with data indicating good concurrent validity (Meinck, et al., 2017). Furthermore, Kazeem (2015) demonstrated concurrent validity for the ACE-IQ and CTQ within Nigerian prison inmates. The ACE-IQ total score and subscales correlate with the CTQ, indicating that the ACE-IQ can assess ACEs (Kazeem, 2015).

Unfortunately, with limited research and variation in measures, no research covers other types of reliability, including parallel forms reliability, obtained by administering different versions of a measure to establish consistency of results across alternate versions. No research provides evidence of construct validity to ensure ACE measures assess the correct construct rather than other variables, and content validity to ensure that tools measure the behaviour for which they intended. Therefore, further research is needed.

Factor Analyses of ACE Measures

Factor analyses summarise variables into clusters based on shared variance. Specifically, it uses statistical procedures for the simplification of interrelated measures to discover patterns in a set of variables (Child, 2006; cited in Yong & Pearce, 2013). Exploratory Factor Analysis (EFA) aims to uncover complex patterns by exploring the dataset and testing predictions, whilst Confirmatory Factor Analysis (CFA) attempts to confirm hypotheses (Yong & Pearce, 2013).

There are advantages to examining the factor structure of ACE items (Ford, et al., 2014). If ACE items are associated with several different factors, the way they are summarised may influence how different factors interact and predict long-term health outcomes (Ford, et al., 2014). Furthermore, if numerous items measure the same factor, one item can represent that construct, which increases practicality for researchers with limited resources (Ford, et al., 2014). When examining the factorial structure of 11

ACE items administered within the BRFSS using EFA and CFA, items generated three composite scores estimating the effects of exposure to 'household dysfunction', 'emotional/physical abuse', and 'sexual abuse', all of which map onto a higher order factor of child maltreatment: 'overall ACE' (Ford, et al., 2014).

Discussion

ACE measures are developed from diverse theoretical standpoints, therefore conducted from different perspectives, e.g. measuring children/adolescents versus adult/older adult retrospective recall, and different time frames, e.g. current year or the first 18 years (Ritacco & Suffla, 2012; CDC, 2020a). Like elder abuse, variation in measurement instruments may result from varying research objectives and inconsistent definitions of childhood maltreatment (Ritacco & Suffla, 2012), which impact reliability and validity. Nevertheless, ACE measures have at least good, if not excellent reliability and validity when assessing childhood victimisations, therefore being psychometrically valuable when used with various populations and contexts.

Limitations of ACE measures

ACE measures may not encompass the breadth of adversities (Finkelhor, et al., 2015). Wade, et al. (2014) conducted focus groups with adolescents from low-income Philadelphian neighbourhoods; participant's identified various experiences including many, but not all, of the initial ACE domains. Whilst gathering perspectives on ACEs broadens understanding of childhood maltreatment, Finkelhor, et al. (2015) and Wade et al. (2014) suggest this agenda should include adversities such as peer relationships, poverty, and violence exposure, all predicting future negative outcomes. Further research is needed to determine the significance of broader sets of adversities in predisposing children to negative outcomes in adulthood and older adulthood (Wade, et al., 2014).

Furthermore, many ACE measures utilise retrospective reports, increasing the possibility of recall bias, potentially threatening the internal validity and credibility of studies using self-report (Hassan, 2006). Adults may have difficulty recalling experiences with large time lapses between the event in question and the survey questions (Dube, et al., 2004). Selective recall might increase unhappy/disadvantaged individuals' likelihood to remember negative experiences more readily or apply a negative focus on those experiences, ultimately creating false associations between ACEs and later outcomes (Finkelhor, Shattuck, et al., 2011). Responses may vary due to the questions sensitive nature, whilst stressful or traumatic experiences may cause memory impairments resulting in incomplete or total inability to recall experiences (Williams, 1994; Strange & Takarangi, 2015). This may lead to variability in responses over time potentially affecting reliability (Dube, et al., 2004). These factors may be further exacerbated when older adults are questioned about their ACEs, due to memory and cognitive impairments. Conversely, whilst children and adolescents can be helpful in identifying current ACEs, measures utilising such samples may reduce reliability (Bledsoe, 2018) and create concerns over how useful the information is, particularly since younger people are less likely to have developed the conditions that ACE measures address. Since no consistent ACE measure is utilised, the use of different ACE items means scales are not standardised, nor normalised on general populations and across contexts; a vital feature when using a psychometric in practice. Having a consistent ACE measure may improve psychometric properties and allow for standardisation.

Importance of ACE Measures

The review highlights that ACE measures contribute well to the childhood trauma and maltreatment field, providing many potential uses. They can act as screening tools; whereby contemporary assessment would allow faster identification of at-risk individuals without waiting for completion of childhood. This would allow researchers and practitioners to target interventions to reduce the likelihood of long-term detrimental effects into adulthood and older adulthood (Finkelhor, et al., 2011), further contributing

towards prevention and public policy (Bellis, et al., 2013). ACE items have good psychometric properties and have been subjected to factor analyses, therefore researchers can use single items to represent a construct increasing practicality. Finally, ACE measures can be used to understand the negative outcomes present within adults and older adults who report childhood adversities, as such contributing towards a greater understanding about lifetime victimisation experiences.

ACE Links to Elder Abuse

Like their younger counterparts, older victims past traumas may affect their current presentation (Teaster, 2017). Studies indicate that cumulative childhood trauma has profound effects even fifty years later, being associated with negative health outcomes and increased potential for future victimisation. Experiencing ACEs is linked with frailty in older age (van der Linden, et al., 2018), with DVA research demonstrating that long-lasting, escalating late-life effects result from earlier victimisation (Teaster, 2017), demonstrating the severity of poly-victimisation across the lifespan.

Despite the review presenting the psychometric properties for ACE measures addressing relationships between ACEs and negative outcomes, many studies utilise adult and older adult retrospective recall with positive results. Therefore, since ACE measures are often adapted to address specific research questions, including those addressing poly-victimisation, this framework was deemed suitable for the primary research presented within chapter four and five. Items from the R-ACE provided a basis, allowing for the inclusion of all elder abuse subtypes as defined by various organisations (e.g. Action on Elder Abuse, CDC and WHO), alongside additional lifetime experiences, including exposure to community violence, isolation and rejection. Items reflected those used within O'Keeffe, et al. (2007) UK national prevalence study and Williams, et al. (2017) US poly-victimisation study, both of which have demonstrated reliability and validity (e.g. Acierno, et al., 2003; O'Keeffe, et al., 2007). However, unlike these tools, the R-ACE assesses emotional and physical neglect as separate

entities, a feature included within the adapted tool. Both are considered important for older adults, particularly since they are likely to face different emotional and physical needs (Knight & Hester, 2016). To extend the ACE framework into elder mistreatment and poly-victimisation, items addressed different forms of mistreatment across the lifespan: before 60, since 60 and within the past year.

Cronbach's α for all mistreatment subtypes was 0.90, representing acceptable reliability. ACE measures have been demonstrated to have predictive and concurrent validity; and although no specific validity testing was conducted for the adapted tool, items reflected those from previously constructed and validated measures (e.g. Finkelhor et al., 2015; O'Keeffe, et al., 2007; Williams, et al., 2017). Furthermore, a small pilot test was conducted prior to commencing the research. Participants were asked whether they had any difficulty answering the questions, whether any questions were confusing, upsetting/distressing or contained any difficult vocabulary, whilst also aiming to identify any unexpected problems within the survey tool. Additionally, the survey tool was automatically and manually tested up to 25 times to check for problems or inconsistencies. Overall, feedback suggested that the questions were suitable and appropriate. Although concerns were raised about the repetitive nature of some of the questions, due to the study design it was difficult to reduce repetition without removing necessary items from the adapted ACE measure.

Summary

The review presented the psychometric properties of elder abuse measures, whilst describing their lack of suitability for the primary research. For this reason, the review then addressed ACE measures, with reliability and validity being presented. Although limitations are identified, knowledge about the ACE framework and associated measures allowed for the modification of the R-ACE within the primary research. Using ACE measures within research addressing other populations and victimisations across the

lifespan should be encouraged since evidence indicates that cumulative childhood trauma has profound effects in later life.

Chapter Three

A systematic review addressing mistreatment in older adults: Risk factors and individual characteristics associated with experience of specific abuse subtypes.

Abstract

Background: Exploring risk factors that make older adults vulnerable to experiencing abuse is an important aspect of the microsystem. However, it is increasingly important to identify risk factors associated with specific types of elder abuse in order to contribute towards improved detection, prevention and intervention. The only previous systematic review on risk factors does not explicitly explore their association with abuse subtypes.

Purpose: To synthesise primary research addressing risk factors, specifically individual characteristics associated with elder abuse subtypes.

Method: Nine electronic databases were searched. Six experts were contacted regarding unpublished research. Articles were compared against a pre-defined inclusion criteria: (1) community-dwelling older adults aged ≥60; (2) risk factors/victim characteristics as the exposure variable, and (3) experience of abuse/neglect as the outcome variable, as reported in interviews, questionnaires, and/or databases.

Results: The full search obtained 9572 references, with 2722 duplicates, 6744 irrelevant references, 20 inaccessible references and 55 references not meeting the inclusion criteria being excluded. Contact with authors produced one response. Twenty-nine studies were reviewed.

Conclusion: Individual characteristics associated with experiencing abuse subtypes included mental and physical health problems, cognitive

impairments, and individual demographics. Conceptual and methodological limitations were identified demonstrating the need for standardised definitions of risk factors and abuse, alongside consistent measurement tools.

KEYWORDS: risk factors, older adults, victim, individual characteristics, abuse, neglect.

Introduction

Chapter two provides an overview of tools used to measure abuse in older adults and further examines the use of the ACE framework for identifying experiences of abuse across the lifespan. This demonstrates the importance of utilising reliable and valid tools to measure experiences of elder abuse. Identification of tools to examine mistreatment and poly-victimisation in older adults' is important, however this is only part of the picture. An important aspect of the socio-ecological framework's 'microsystem' are risk factors which increase older adults' vulnerability to experiencing abuse. Older adults are a vulnerable population due to developmental changes occurring in later life (Hamby, et al., 2016). Health problems, financial security, retirement, changes in living arrangements, bereavement, social isolation, amongst others, all affect individual life experience, and may alter the context in which mistreatment is experienced. Research identifies risk factors which increase an individual's vulnerability to experiencing abuse, with evidence indicating that poor mental and physical health, cognitive impairments, individual demographics (Pillemer, et al., 2016), and previous victimisation (pertaining to poly-victimisation; Teaster, 2017) are associated with abuse.

Understanding associations between risk factors and abuse is important, since identification can contribute towards improved detection, prevention, and intervention. Previously, research focused on factors associated with abuse as a unitary concept, however recent research has addressed associations between risk factors and subtypes of abuse, providing valuable information about older adult vulnerabilities. Although the literature identifies many risk factors, it is unclear which are more prominent, and which are associated with and/or increase the risk of specific abuse subtypes: emotional/psychological, financial, physical, sexual abuse and neglect.

A scoping search conducted on 24th November 2017 using Cochrane Library, the Campbell Collaboration, Google and Google Scholar, identified two

previous systematic reviews. The first addressed intervention programmes to prevent elder abuse (Baker, et al., 2017). The second addressed risk factors for abuse in community-dwelling elders (Johannesen & LoGiudice, 2013). However, this did not explicitly address risk factors with abuse subtypes, instead focusing predominantly on abuse as a whole. Johannesen and LoGiudice (2013) included articles published before 2011 and excluded articles that did not identify statistically significant risk factors, introducing potential bias. The review lacked detail about study quality and how bias judgements were made. The use of scoring systems to denote study quality is discouraged by Cochrane (2011). Therefore, a systematic review of recent research was necessary to provide additional insight and refine search criteria to include risk factors for emotional/psychological, financial, physical, sexual abuse and neglect as separate entities.

Objectives

The systematic review aims to identify and synthesise primary research addressing factors associated with elder abuse subtypes. Specifically, to address individual victim characteristics as part of the wider relationship dynamic between the perpetrator and environment.

Method

Search Strategy

Search terms were verified by a librarian and modified depending on database requirements:

(risk factor* OR factor* OR vulerabili* OR characteristic* OR victim characteristic*) AND {(elder abuse OR elder mistreatment OR elder maltreatment OR elder abuse subtype*) OR [(older adult* OR elder*) AND (abuse OR neglect OR violence OR exploitation)]}

Nine databases were systematically searched between 29th June and 4th July 2018: Applied Social Sciences Index & Abstracts (ASSIA; 1987-present), CINAHL (1981-present), Cochrane Library (1992-present), EMBASE (OVID;

1974-present), MEDLINE (OVID; 1946-present), PsycINFO (OVID; 1806-present), PubMed (1996-present), Science Direct (1996-present) and Web of Science (1900-present). Secondary searching strategies included OpenGrey, ProQuest, and E-theses. Articles were independently screened in several stages; screening of titles and abstracts identified within the database search, followed by the retrieval and screening of full text articles using the eligibility criteria described below. Reference lists of articles retrieved were screened for relevant studies. Six experts were contacted regarding unpublished research: Dr Ananda Amstadter (Virginia Commonwealth University), Dr Ron Acierno (The Medical University of South Carolina), Dr David Burnes (University of Toronto), Dr Xinqi Dong (Rush University), Dr Shelly Jackson (University of Virginia) and Professor Karl Pillemer (Cornell University). One replied, confirming all research had been published.

Inclusion/Exclusion Criteria

Population: Community-dwelling (non-institutionalised) older adults (males and females), aged ≥60 years. Examining risk factors for both males and females is important to allow for any variations between gender to be identified (e.g. Walby & Towers, 2017). Prior research has demonstrated that being female is a risk factor for abuse across all life stages, with older women being more likely to become victims of abuse than older men. Furthermore, since data regarding risk factors for specific abuse subtypes is limited within the literature, the current review aims to capture as much information as possible about older adults' vulnerabilities.

Exposure: Risk factors (including mental health problems, physical health problems, individual demographics, and cognitive impairments) as measured/reported in interviews, standardised self-report questionnaires, and/or databases.

Comparator: No known or identified risk factors associated.

Outcomes: Abuse subtypes (emotional/psychological, financial, physical, sexual abuse, and neglect) as measured/reported in interviews, standardised self-report questionnaires, and/or databases.

Study Design: Studies utilising methods of retrospective recall, including cohort, cross-sectional and case control.

Statistical Analysis: Relationship between exposure and outcome were established through multivariate analyses; including logistic regression, multiple logistic regression, or similar advanced statistics.

Articles addressing older adults within institutional care (e.g. nursing/residential homes) and with other medical conditions (e.g. dementia, stroke) were excluded. These individuals may present different needs and risk factors to general older adult populations and may obtain specialist support, all altering the context in which abuse is experienced. Self-neglect is not universally recognised as elder abuse since it does not involve a perpetrator. Whilst self-neglect may share features of elder abuse, it was beyond the scope of this review. References were not excluded based on language.

Study Selection

Following the search, references were compared against the inclusion/exclusion criteria (Appendix 8). References not meeting the inclusion criteria were excluded. Where details were unclear, authors were contacted. Figure 2 presents the search strategy.

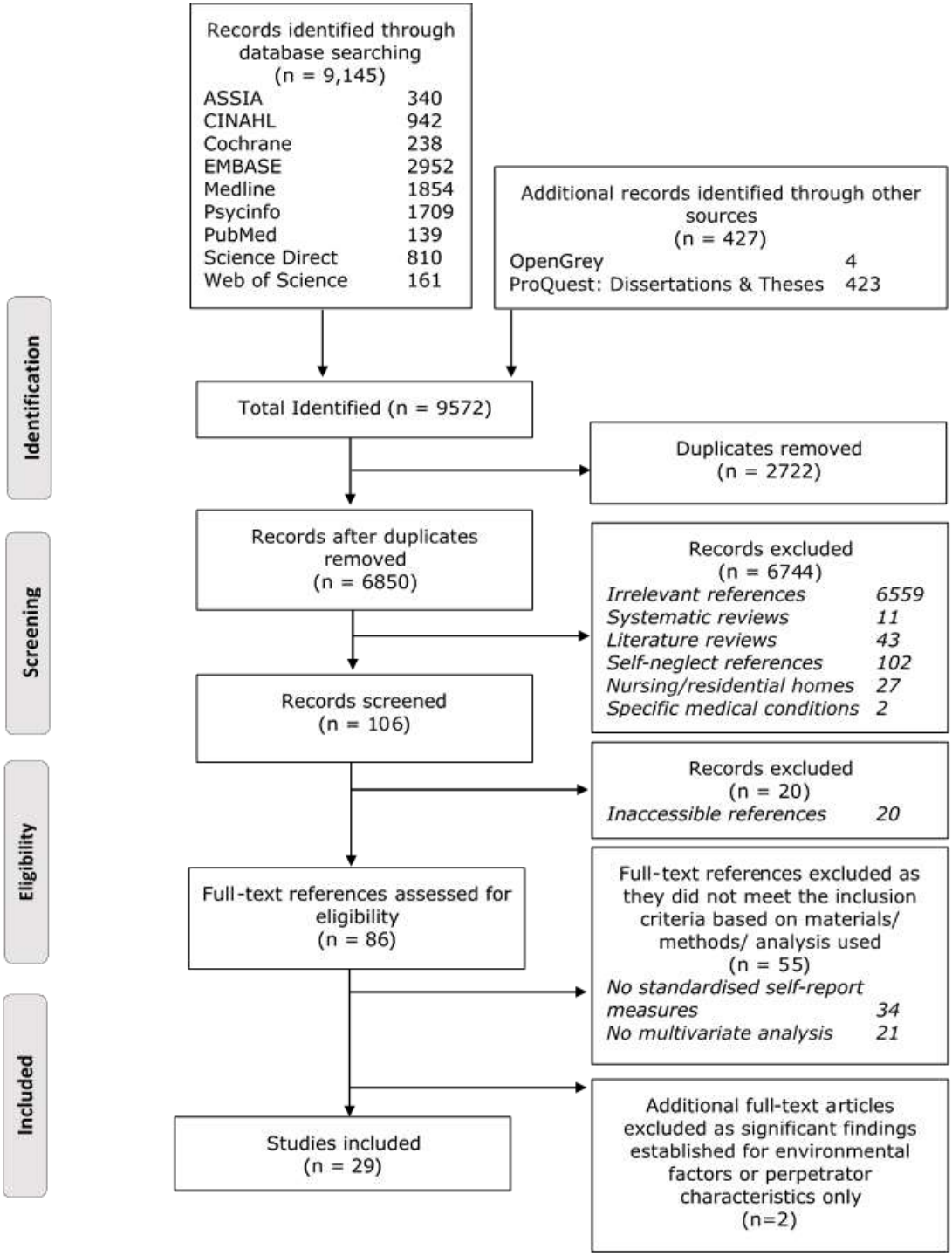


Figure 2. Systematic review search and inclusion / exclusion process.

Quality Assessment – Risk of Bias

Quality assessment forms (Appendix 9) were developed using guidance from Cochrane (2011) and Shenkin, et al. (2017). Five categories addressed sampling/selection bias, measurement bias for exposure and

outcome, attrition bias and reporting bias across 16 items. To assess risk of bias, individual items were rated as present, absent, or unclear, each requiring a description of evidence. Overall risk of bias for each domain was denoted as low, high, or unclear. The first author assessed the quality of all included studies, with a second author independently assessing 20% (n=6) to ensure consistency. A 92% agreement level was established; disagreements occurred due to lack of clarity regarding items, whereby one domain would be marked as 'low' by one reviewer and 'unclear' by the other, therefore, items were not altered.

Data Extraction

Data was extracted by one reviewer due to time and resource constraints. The main categories of data extracted included characteristics of the sample, methodological characteristics of the study, and details about risk factors and abuse subtypes identified. A pre-defined data extraction pro-forma was used (Appendix 10). 'Unclear' information was highlighted since the time-limited review did not allow for further contacting of authors.

Results

Description of studies

The full search obtained 9572 references, with 2722 duplicates and 6744 irrelevant references excluded. Twenty references were inaccessible; although authors were contacted, only two replied (articles excluded), with the remaining references being excluded. Fifty-five references were excluded as they failed to meet the inclusion criteria. Thirty-one studies addressing individual, perpetrator and environmental risk factors remained. This review focuses on individual characteristics significantly associated with abuse, including mental and physical health, cognitive impairments, and demographics, therefore two studies were excluded as they addressed perpetrator and environmental factors alone. Overall, 29 studies are reviewed. Table 1 presents study characteristics.

Characteristics of included studies

The number of participants included was 87,843. Where identified, exclusions occurred due to participant unavailability; refusal; not finishing the interview or providing inconsistent answers; being deaf or cognitively impaired. Ages ranged between 60-102 years. Fourteen studies provided categorised age ranges without describing overall age range. Participants were described as 'cohabitating couples'[2]; adult protective service (APS) caseworkers managing reported elder abuse cases, victims of these cases and third-party informants[18], and alleged victims and perpetrators[28]. Remaining studies described participants as community-dwelling older adults. Participants were sampled from the USA, Canada, China, Macedonia, The Netherlands, Germany, Italy, Lithuania, Portugal, Sweden, Spain, Turkey, Poland, Iran, Nepal, and South Korea. Nine studies used the same dataset to report findings [6,17], [10,11], [12,14], [3,15,20]. Therefore, subsamples may overlap. Twenty-three used a cross-sectional design, three used a cohort design and three used a case control design.

Table 1.

Characteristics of included studies

Study Number	Author(s)	Study Design & Country	Sample Size	Characteristics		Risk Factors & Individual Characteristics Addressed (e.g. Exposure)	Measurement Tools:	
							Exposure	**Outcome** *(Abuse Subtypes Addressed)*
1	Brozowski & Hall (2004)	Cohort Canada	3366	Age: Male: Female:	≥65 1301 2065	Demographics, socioeconomic variables, health status	1999 General Social Survey - Statistics Canada (GSS-99)	1999 General Social Survey - Statistics Canada (GSS-99) *(Emotional)*
2	Daly, Hartz, Stromquist, Peek-Asa & Jogerst (2008)	Cohort USA	362	Age: Male: Female:	65-87 (*M*=73) 198 164	Demographics, psychological/general health	CAGE (Mayfield, McLeod & Hall, 1974), Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977), Social Readjustment Rating Scale (SRRS; Holmes & Rahe, 1967), 12-item Short Form Health Survey (SF-12; RAND)	Conflict Tactics Scale (CTS; Straus, 1979) *(Emotional, low prevalence for physical abuse - not analysed)*
3	Macassa, et al. (2013)	Cross-Sectional Europe	4467	Age: Male: Female:	60-84 1908 2559	Demographics, socioeconomic variables, mental/physical health, health care access, social support	Hospital anxiety and depression scale (Zigmond et al., 1983), Giessen Complaint List (Bahler, 1995), Multidimensional Scale of Perceived Social Support (Zimet et al., 1990, 1988), Alcohol use disorders identification test (AUDIT; Power et al., 2005)	Conflict Tactics Scale-2 (CTS-2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996) *(Psychological)*
4	Choi, Kulick & Mayer (1999)	Case Control USA	386	Age: Male: Female:	≥60 158 228	Demographics, socioeconomic variables, housing status, social network, ADL/IADL assistance, cognitive/physical ability	Variables examined by addressing case files	Variables examined by addressing case files *(Financial)*
5	Wood, Liu, Hanoch & Estesvez-Cores (2015)	Cross-Sectional USA	201	Age: Male: Female:	60-95 (*M*=74.84) 60 141	Demographics, physical/mental health, numeracy, dependency, cognition, executive functioning	Instrumental Activities ff Daily Living Scale (IADLS; Lawton & Brody, 1969), SF-12, 30 item Mini Mental State Examination (MMSE-30; Folstein, Folstein & McHugh, 1975), Trial Making Tests A and B, Stroop Task	Older Adult Financial Exploitation Measure (OAFEM; Conrad, Iris, Ridings, Langley, & Wilber, 2010) *(Financial)*

6	Acierno, et al. (2010)	Cross-Sectional USA	5777	Age: Male: Female:	60-97 (*M*=71.5) 2300 3477	Demographics, socioeconomic variables, previous trauma, social support, use of services, ADL assistance	Unclear	Unclear *(Emotional, physical, sexual, financial, neglect)*
7	Alizadeh-Khoei & Sahrifi (2014)	Cross-Sectional Iran	300	Age: Male: Female:	60-90 (*M*=68.73) 140 160	Demographics, socioeconomic variables, living arrangements, health status	Demographic data obtained	Hwalek-Sengstock Elder Abuse Screening Test (HSEAST; Neale, Hwalek, Scott, Sengstock & Stahl, 1991) *(Physical, psychological, financial, neglect)*
8	Amstadter, et al. (2011)	Cross-Sectional USA	902	Age: Male: Female:	60-97 (*M*=71) 362 540	Demographics, socioeconomic variables, health status, previous trauma, social support, use of services, ADL assistance	World Health Organisation Short Form 36 Health Questionnaire (SF-36), modified five-item Medical Outcomes Study	Unclear *(Emotional, physical, sexual, financial, neglect)*
9	Beach, Schulz, Castle & Rosen (2010)	Cross-Sectional USA	903	Age: Male: Female:	≥60 (*M*=72.5) 241 662	Demographics, household composition, cognitive function, physical disability, depressive symptoms	Measure of cognitive status from Asset and Health Dynamics Among the Oldest Old study (Herzog & Wallace, 1997), six items regarding IADLs, Center for Epidemiological Studies–Depression Scale (CES-D; Shrout & Yager, 1989)	Items from modified CTS *(Financial, psychological, low prevalence for neglect, physical & sexual abuse - not analysed)*
10	Burnes, et al. (2015)	Cross-Sectional Canada	4156	Age: Male: Female:	≥60 (*M*=74.1) 1476 2680	Demographics, socioeconomic variables, functional capacity, health status, cohabitation status	Duke OARS (Durham, 1978),	Modified CTS *(Emotional, physical, neglect)*
11	Burnes (2014)	Cross-Sectional Canada	4156	Age: Male: Female:	≥60 (*M*=74.1) 1476 2680	Demographics, socioeconomic variables, functional capacity, health status, cohabitation status, victim-perpetrator relationship dynamics	Duke OARS	Modified CTS *(Emotional, physical, neglect)*

					Participants without elder abuse (n=8694)	*Participants with elder abuse (n=238)*			
12	Dong, Simon, Rajan & Evans (2011)	Cross-Sectional USA	8932	Age: Male: Female:	(M=73.3) 5216 3478	(M=76.2) 57 181	Demographics, socioeconomic variables, physical/mental health status, social network, social engagement, cognitive function	30-item MMSE, East Boston Memory Test (Albert, et al., 1991), 11-item oral version of the Symbol Digit Modalities Test (Smith, 1982)	Matched data from Chicago Health and Aging Project (CHAP) participants to elder abuse cases *(Physical, sexual, emotional, financial, neglect)*
					Participants without elder abuse (n=6016)	*Participants with elder abuse (n=143)*			
13*	Dong, Simon & Evans (2012)	Cohort USA	6159	Age:	(M=72.1)	(M=72.5)	Demographics, socioeconomic variables, medical conditions, cognitive/physical function, social network/engagement	Katz Index of Activities of Daily Living (Katz & Akpom, 1976), Index of Mobility (Rosow & Breslau, 1966) , Index of Basic Physical Activities (Nagi, 1976)	Matched data from CHAP participants to elder abuse cases *(Physical, sexual, emotional, financial, neglect)*
					Participants without elder abuse (n=8694)	*Participants with elder abuse (n=238)*			
14	Dong, Simon & Evans (2014)	Cross-Sectional USA	8932	Age: Male: Female:	(M=73.3) 5216 3478	(M=76.2) 57 181	Demographics, socioeconomic variables, medical conditions, mental health, social network, social engagement, physical function	Direct physical performance testing, Katz ADL, Index of Mobility, Index of Basic Physical Activities	Unclear *(Physical, sexual, psychological, financial, neglect)*
15	Fraga, et al. (2014)	Cross-Sectional Europe	4467	Age: Male: Female:	60-84 1908 2559		Socioeconomic variables, city-level & country-level indicators	Eurostat database information	CTS-2 *(Psychological, physical, grouped sexual and injury)*
16	Garre-Olmo, et al. (2009)	Cross-Sectional Spain	673	Age: Male: Female:	75-100 280 393		Demographics, socioeconomic variables, nutritional status, cognitive function, depression symptoms, functional dependence	Mini Nutritional Assessment (MNA), MMSE, five-item Geriatric Depression Scale; (GDS, Yesavage, 1988), World Health Organization Disability Assessment Schedule II (WHODAS-II)	American Medical Association (AMA) Screen for Various Types of Abuse or Neglect *(Psychological, financial, neglect, low prevalence for physical - not analysed)*
17	Hernandez-Tejada, Amstadter, Muzzy & Acierno (2013)	Cross-Sectional USA	5777	Age: Male: Female:	60-97 (*M*=71.5) 2300 3477		Ethnicity, race, socioeconomic variables, health status, previous trauma, social support	SF-36, modified five-item Medical Outcomes Study	Standardised interview schedule *(Emotional, physical, sexual)*

					APS Caseworkers (n=71)	*Elder Victims (n=55)*	*Informants (n=35)*	*APS Database (n=2142)*			
18	Jackson & Hafemeister (2011)	Cross-Sectional USA	2303	Age: Male: Female:	22-70 (*M*=43) 6 65	60-94 (*M*=76) 14 41	28-72 (*M*=55) 20 15	60-102 (*M*=78.6) 718 1424	Demographics, socioeconomic variables, health status, previous trauma, dependence on others	Tool developed for research	Tool developed for research, APS database *(Financial, physical, neglect, hybrid financial exploitation)*
19	Keskinoglu, et al. (2007)	Cross-Sectional Turkey	497	Age: Male: Female:	65-94 224 273				Demographics, residence, economic status, health status	Tool developed for research	Tool developed for research *(Physical, financial, neglect)*
20	Lindert, et al. (2012)	Cross-Sectional Europe	4467	Age: Male: Female:	60-84 1908 2559				Demographics, socioeconomic variables	Demographic data obtained	CTS-2 *(Psychological, physical, sexual, financial, neglect)*
21	Markovik & Peshevska (2014)	Cross-Sectional Macadonia	960	Age: Male: Female:	≥65 430 530				Demographics, socioeconomic variables, lifestyle factors, diseases, physical/mental health	GDS-15	Unclear *(Psychological, physical, financial, sexual, neglect)*
22	Yadav & Paudal (2016)	Cross-Sectional Nepal	212	Age: Male: Female:	60-102 (*M*=69.84) 104 108				Demographics, socioeconomic variables, living arrangements	Tool develop for research	Tool develop for research *(Physical, psychological, financial, sexual, neglect)*
23	Yan & Tang (2004)	Cross-Sectional China	276	Age: Male: Female:	60-91 (*M*=74) 90 186				Demographics, dependence, physical/cognitive function	Tool develop for research	CTS-2 *(Physical, verbal, violation of personal rights)*
24	Tobiasz-Adamczyk, Brzyski, & Brzyska (2014)	Cross-Sectional Poland	517	Age: Male: Female:	≥65 198 319				Health-related quality of life, health status, social support, loneliness, depressive symptoms	SF-36, Social Support List 12 – Interactions Scale (Ormel, et al., 1992), De Jong-Gierveld Loneliness Scale, GDS	Tool develop for research *(Physical, psychological, financial, neglect)*
25	Wu, et al. (2012)	Cross-Sectional China	2000	Age: Male: Female:	60-93 (*M*=68.8) 801 1199				Demographics, socioeconomic variables, living arrangement, physical disability, chronic diseases, labour intensity, depression	GDS-15	HSEAST *(Physical, psychological, financial, neglect)*

26	Choi & Mayer (2000)	Case Control USA	370	Age: Male: Female:	≥60 109 261	Demographics, socioeconomic variables, social network, mental health, physical/ functional/cognitive ability, substance use	Variables examined by addressing case files	Unclear *(Financial, physical, emotional, sexual, neglect and self-neglect)*
27*	Comijs, Jonker, van Tilburg & Smit (1999)	Case Control The Netherlands	147	Age:	65-84	Coping style, locus of control, perceived self-efficacy, hostility	Dutch versions: Utrechtse Copinglijst (UCL; Schreurs & van de Willige 1988), Pearlin Mastery Scale (Pearlin & Schooler 1978), General Self-efficacy Scale (Sherer et al. 1982; Bosscher et al. 1997), Buss-Durkee Hostility Inventory (Buss & Durkee 1957; Lange et al. 1995), Eysenck Personality Questionnaire-Lie Scale (EPQ-L; Eysenck and Eysenck 1991)	Unclear *(Chronic verbal aggression, physical, financial, low prevalence for neglect - not analysed)*
28	Conrad, Liu & Iris (2016)	Cross-Sectional USA	948	Age: Male: Female: Missing:	≥60 (*M*=77.3) 312 597 39	Substance use, cognitive status, mental health status, ADL/IADL assistance	Elder Abuse Decision Support System (EADSS)	EADSS *(Financial, psychological, physical, neglect)*
29	Oh, Kim, Martins & Kim (2006)	Cross-Sectional South Korea	15,230	Age: Male: Female:	≥65 5287 9943	Demographics, health/functional status, family characteristics, elder family relationship	Barthel Index, PGC-IADL (Kane & Kane, 1988), MMSE-K (developed for Korean adults)	Tool developed for research *(Physical, emotional, financial, verbal, neglect)*

Note. Ages presented in years and/or mean (M).
Measurement tools for exposure include the standardised and validated tools reported alongside various additional items addressing factors identified under 'Risk Factors & Individual Characteristics Addressed'.
*Articles do not report gender data.

Quality of included studies

Bias impacts validity and reliability of findings having consequences for practice. Twenty-one studies[1,2,5-12,16,17,19,21-25,27-29] utilised interviews to measure risk factors and abuse subtypes. Three utilised interviews and self-report questionnaires[3,15,20], two used pre-existing databases[4,26], two used observations, self-report questionnaires, interviews and/or databases[13,14]; one used databases and interviews[18]. Nineteen[2,3,5,7,12,13,15,16,18-25,27-29] used face-to-face interviews whilst seven[1,6,8-11,17] used telephone interviews. Face-to-face interviews can introduce response bias, impacting validity and reliability. Although telephone interviewing is efficient for collecting information from large representative samples at low costs, they can limit recruitment. Individuals need landline access and victims may be under surveillance from abusers, creating a sampling/selection bias. Brozowski and Hall (2004) highlight that despite using a weighted sample to accurately represent the Canadian population, victims monitored by abusers were underrepresented.

Studies demonstrated additional elements of sampling/selection bias. Wood, et al. (2015) used pre-existing participant pools and/or flyers distributed to retirement communities, methods which may recruit more 'willing', accessible participants (Etikan, et al., 2016). The sample consisted of highly educated and active individuals, therefore limiting generalisability. Although Jackson and Hafemeister (2011) obtained data from several sources increasing reliability, their use of convenience sampling may over-/under-represent certain groups, increasing potential bias. Furthermore, considering reported abuse cases and not abuse which is yet to be reported may reduce sample representativeness. Oh, et al. (2006) identified that since their sample was not randomly drawn and they did not compare respondents and non-respondents' demographic information, it is potentially biased and not representative. Choi, et al. (1999) and Choi and Mayer (2000) used pre-existing databases with little information regarding the sample's representativeness.

Confounding variables are controlled for by virtue of the statistical methods conducted, however some studies were unclear about whether all confounding variables known in the literature were accounted for. Two studies[19,21] provided unclear descriptions about statistical analyses and how confounding variables were controlled. This may impact study quality by increasing the selection bias caused by inadequate confirmation and consideration of confounding variables. Most studies demonstrated 'unclear' attrition bias, lacking detail about participant loss[1-3,5,6,12-15,17,18,19,20,21,28], or whether those who dropped out were systematically different to those who remained[1-3,5-25,27-29]. Six studies provided details about missing data and imputation methods[1,10,18,25,28,29]. One study[24] demonstrated high attrition bias reporting participant loss of 49.8%.

Measurement bias occurs if a tool has not been assessed for validity or reliability (Smith & Noble, 2014). The construct validity of a measurement tool largely relies on how a construct is defined; clear standardised definitions operationalised within measures improves construct validity. Within interpersonal violence research, risk factors can be arbitrary to define. Studies generally do not provide standardised definitions, instead broadly describing risk factors identified within the literature. Only two studies defined specific risk factors, e.g. substance use[5] and numeracy[28]. Four studies demonstrating measurement bias for exposure constructed non-standardised measures[18,19,22,23], three[18,19,22] of which constructed tools with no psychometric properties described. Yan and Tang (2004) demonstrated internal consistency of subscales without details of validity. Two studies[4,26] utilised databases, however neither report any standardised procedures to obtain risk factors. Two studies[7,20] measured demographics as risk factors; therefore standardised and validated tools were unnecessary. Nevertheless, 22 studies demonstrating lower risk of bias used standardised and validated tools, measuring depression (CES-D, Radloff, 1977; GDS, Yesavage, 1988), health status (SF-36, RAND), cognitive impairment (MMSE, Folstein, et al., 1975), hostility (BDHI, Buss & Durkee, 1957), amongst others.

Regarding measurement bias for outcome, 15 studies[1-3,5,7,9-11,15-17,20,23,25,28] demonstrated low risk. Many provided standardised definitions of abuse according to Government bodies, the WHO, and National Centre on Elder Abuse, or operational definitions from standardised tools, including the CTS (Straus, 1979). Commonly used standardised and validated tools included the CTS and CTS-2 (Straus, et al., 1996), the OAFEM (Conrad, et al., 2010), HSEAST (Neale, et al., 1991). Studies demonstrating higher risk either constructed tools[18,19,22,24,29], or obtained data from databases[4,18] without any standardisation and/or validation. Eight studies provided insufficient information demonstrating unclear risk.

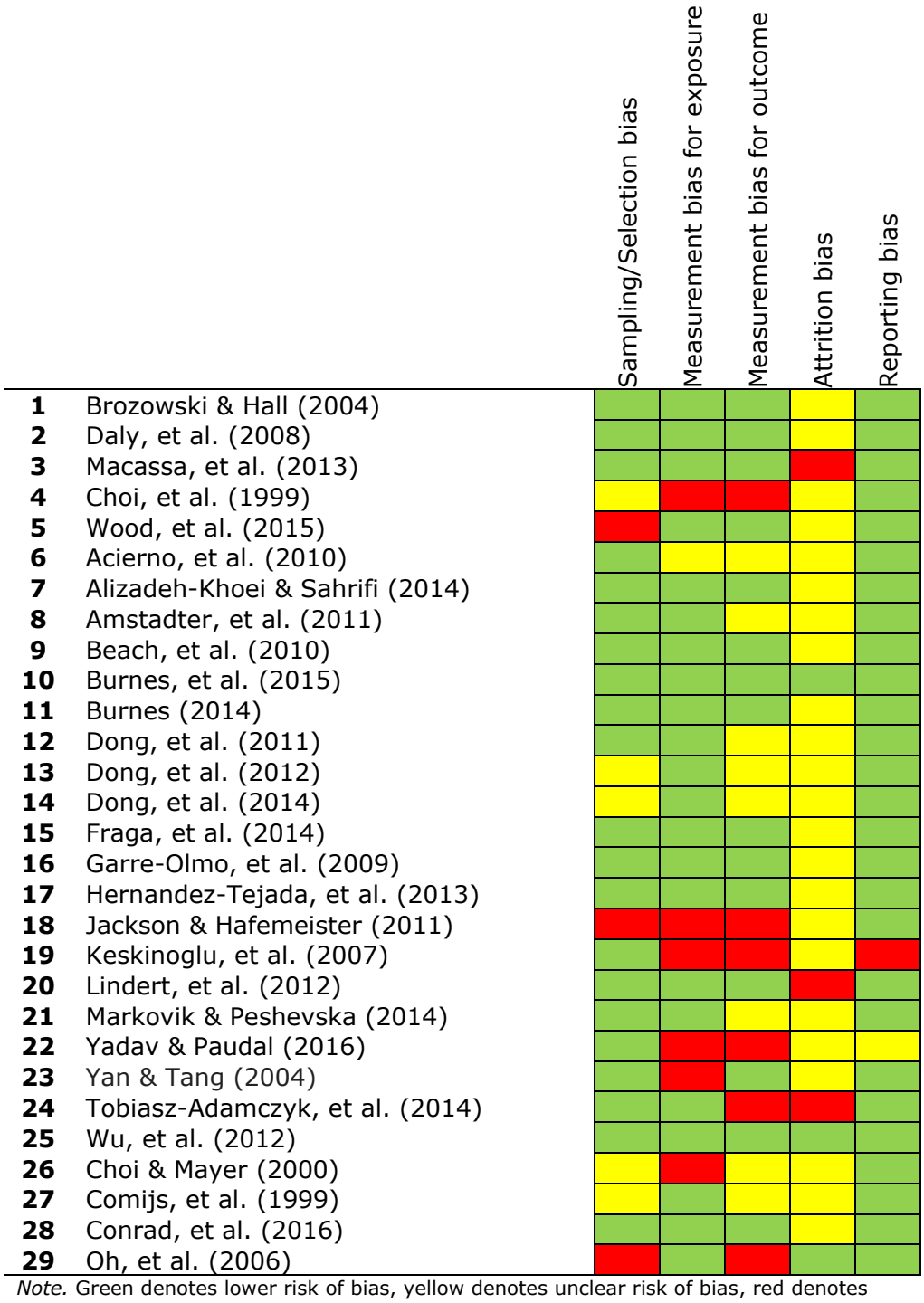
Twenty-seven studies demonstrated low risk of reporting bias. Keskinoglu, et al. (2007) described significant results of logistic regressions only, demonstrating high risk of reporting bias. Yadav and Paudal (2016) provide limited description of their findings. Selective reporting can make published results misleading (Cochrane, 2019b). Studies used appropriate statistical analyses, with 25 studies reporting significance to at least $p<0.05$. Ten studies did not report confidence intervals (CI), whilst 23 were unclear about whether assumptions of data were tested and analysed appropriately. Table 2 presents risk of bias across domains, whilst figure 3 presents the risk of bias summary.

Table 2.

Risk of bias within included studies.

	Number of Studies (n=29)					
	High		**Low**		**Unclear**	
	Total	(%)	Total	(%)	Total	(%)
Sampling/Selection bias	3	(10.3%)	21	(72.4%)	5	(17.2%)
Measurement bias for exposure	6	(20.7%)	22	(75.9%)	1	(3.4%)
Measurement bias for outcome	6	(20.7%)	15	(51.7%)	8	(27.6%)
Attrition bias	3	(10.3%)	3	(10.3%)	23	(79.3%)
Reporting bias	1	(3.4%)	27	(93.1%)	1	(3.4%)
Other bias:	No		Yes		Unclear	
Controlling for confounding variables	0	(0.0%)	27	(93.1%)	2	(6.9%)
Main statistical analysis appropriate	0	(0.0%)	28	(96.6%)	1	(3.4%)
Assumptions of data tested	0	(0.0%)	6	(20.7%)	23	(79.3%)
CI reported	10	(34.5%)	19	(65.5%)	0	(0.0%)
P values at least <0.05	2	(6.9%)	25	(86.2%)	2	(6.9%)

Note. Five risk domains consisted of 16 items, with an overall judgement and risk rating.
Other bias refers to other biases individually addressed, where 'no' pertains to higher risk and 'yes' pertains to lower risk of bias.



Note. Green denotes lower risk of bias, yellow denotes unclear risk of bias, red denotes higher risk of bias.

Figure 3. Risk of bias summary.

Data Synthesis

Studies addressed emotional/psychological, financial, physical, sexual abuse, and neglect. Table 3 presents risk factors, including mental and

physical health problems, cognitive impairments and individual demographics significantly associated with increased likelihood of abuse subtypes. Due to large variations in design and procedures across studies (e.g. methods, ages, prevalence periods), meta-analysis was not deemed appropriate.

Table 3.

Findings from included studies according to abuse subtype.

Outcome	Exposure (e.g. Risk Factors	Study Number	P Value of Significant Results	Odds Ratio and Confidence Interval (95%)
Emotional/Psychological Abuse				
	Mental Health Problems:			
	Depression	2	p=0.03	1.05 (1.00-1.09)
		25	sig.	6.90 (5.20-9.10)
	Suspected depression	16	p =0.04	1.65 (1.01-2.72)
	Risk for depression	9	p<0.001	3.14 (-)
	High levels of anxiety	3	p<0.0001	1.08 (1.05-1.11)
	Physical Health Problems:			
	Sleep problems	1	sig.	1.24 (-)
	Health-related activity limitations	1	sig.	1.35 (-)
	Lower physical performance	13	-	1.09 (1.01-1.18)
		14	p<0.001	1.12 (1.06-1.19)
	Higher Nagi score	13	-	1.22 (1.01-1.46)
		14	p<0.001	1.32 (1.14-1.52)
	Higher Katz score	14	p<0.01	1.18 (1.04-1.33)
	Higher Rosow-Breslau score	14	p<0.001	1.54 (1.25-1.89)
	Physical disability	25	sig.	1.50 (1.10-2.20)
	Poor health (controlling for ethnicity)	17	p=0.005	1.61 (1.15-2.23)
	Poor health (controlling for race)	17	p=0.003	1.67 (1.19-2.34)
	Victim alcohol consumption	3	p<0.05	1.31 (1.06-1.63)
	Current smoking	22	sig.	2.95 (1.09-7.97)
	Somatic complaints	3	p<0.0001	1.02 (1.01-1.03)
	Frequent bladder incontinence	16	p =0.005	2.44 (1.23-4.86)
	Chronic disease	25	sig.	1.30 (1.00-1.60)
	Experiencing frequent sick days	29	p<0.01	1.05 (1.01-1.09)
	Individual Demographics:			
	Female	21	p<0.01	1.50 (-)
	Male	29	p<0.01	1.49 (1.19-1.86)
	Separated/divorced	1	sig.	1.28 (-)
		10	p≤0.01	2.7 (1.50-5.00)
		11	p=0.002	2.69 (1.45-4.99)
	Widowed/divorced/single/separated	25	sig.	2.10 (1.50-2.80)
	Prior marriage/cohabitation	1	sig.	2.54 (-)
	Catholic	1	sig.	1.32 (-)
	Reported another faith/no faith	1	sig.	1.85 (-)
	Level of education	7	p=0.045	8.51 (1.05-68.91)
	Some college education	9	p=0.044	1.88 (-)
	African-American	9	p=0.009	2.30 (-)
	Lower age	6	p=0.001	3.16 (2.10-4.75)
	Aged 75-79	29	p<0.05	1.36 (1.04-1.79)
	Higher antisocial personality score	2	p=0.023	1.35 (1.04-1.74)
	Previous crime victim	1	sig.	1.88 (-)
	Previous traumatic event	6	p=0.001	2.27 (1.47-3.51)
	Cognitive Impairments:			
	Global cognition	12	p<0.005	1.45 (1.10-1.89)
	Perceptual speed	12	p<0.01	1.04 (1.02-1.06)

Financial Abuse			
Mental Health Problems:			
Poor mental health	5	p<0.05	-
Risk for depression	9	p=0.001	2.56 (-)
Physical Health Problems:			
Poor physical health	5	p<0.001	-
Lower physical performance	14	p<0.01	1.08 (1.03-1.14)
Higher Nagi score	14	p<0.01	1.18 (1.04-1.34)
Higher Rosow-Breslau score	14	p<0.001	1.39 (1.16-1.68)
Current smoking	22	sig.	4.13 (1.48-11.46)
Physical disability	25	sig.	2.80 (1.20-6.60)
Experiencing IADL difficulties	9	p=0.027	1.97 (-)
Individual Demographics:			
Male	5	p<0.01	-
	29	p<0.01	1.39 (1.12-1.73)
Single (marital status)	16	p=0.006	1 (-)
Widowed	20	p=0.000	1.94 (1.37-2.74)
Separated	20	p=0.001	2.21 (1.36-3.59)
Higher education attainment	5	p<0.01	-
No education	29	p<0.01	1.98 (1.46-2.69)
African-American	9	p<0.001	3.91 (-)
Younger age	5	p<0.05	-
Aged 81-84	20	p=0.001	2.26 (1.41-3.61)
Aged 85+	16	p =0.001	3.84 (1.70-8.68)
Advanced age	26	p<0.05	1.06 (-)
	18	p<0.05	1.02 (-)
	15	sig.	1.69 (1.24-2.31)
High labour-intensive job	25	sig.	2.60 (1.40-5.00)
Indirect aggression	27	sig.	1.23 (1.07-1.42)
High perceived self-efficacy score	27	sig.	1.11 (1.02-1.20)
Cognitive Impairments:			
Cognitive deficits (unable)	4	p<0.08	2.59 (-)
	26	p<0.05	3.78 (-)
Cognitive deficits (sometimes able)	26	p<0.05	4.93 (-)
Lower numeracy levels	5	p<0.05	-
Global cognition	12	p<0.001	1.61 (1.28-2.03)
Episodic memory	12	p<0.05	1.05 (1.02-1.09)
Perceptual speed	12	p<0.01	1.04 (1.02-1.06)
MMSE score	16	p=0.002	0.85 (0.78-0.94)
Physical Abuse			
Mental Health Problems:			
Mental health problems	18	p<0.001	1.31 (-)
Depression	25	sig.	6.30 (4.80-8.30)
Physical Health Problems:			
Poor health (controlling for ethnicity)	17	p=0.032	1.92 (1.06-3.50)
Lower physical performance	14	p<0.05	1.12 (1.02-1.23)
Higher Nagi score	14	p<0.05	1.26 (1.00-1.58)
Individual Demographics:			
Female	21	p<0.05	2.05 (-)
Separated/divorced	10	p≤0.05	1.96 (1.04-3.68)
	11	p=0.038	1.95 (1.04-3.67)
Level of education	7	p=0.015	2.73 (1.21-6.15)
No education	29	p<0.05	1.55 (1.00-2.39)
Lower age (<70 years)	6	p=0.004	4.10 (1.59-10.60)
High palliative reaction score	27	sig.	1.24 (1.01-1.51)
High avoidance score	27	sig.	1.26 (1.08-1.47)
Cognitive Impairments:			
Global cognition	12	p<0.01	1.88 (1.27-2.77)
MMSE score	12	p<0.05	1.08 (1.03-1.14)
Sexual Abuse			
Previous traumatic event	6	p=0.041	13.98 (1.11-175.46)

Neglect			
Mental Health Problems:			
Depression	25	sig.	2.60 (1.90-3.50)
Physical Health Problems:			
Poor health	6	p=0.001	2.18 (1.42-3.37)
	8	p=0.006	3.79 (1.46-9.81)
	10	p≤0.05	2.10 (1.20-3.80)
	11	p=0.017	2.03 (1.13-3.63)
Lower physical performance	13	-	1.16 (1.07-1.26)
	14	p<0.001	1.17 (1.11-1.24)
Higher Katz score	13	-	1.36 (1.16-1.59)
	14	p<0.01	1.21 (1.08-1.36)
Higher Nagi score	13	-	1.28 (1.05-1.56)
	14	p<0.001	1.42 (1.24-1.62)
Higher Rosow-Breslau score	13	-	1.47 (1.09-1.99)
	14	p<0.001	1.69 (1.38-2.07)
Medical problems	18	p<0.01	1.20 (-)
Current smoking	22	sig.	3.99 (1.95-8.19)
Victim substance use problems	28	p<0.01	-
Individual Demographics:			
Female	21	p<0.01	2.11 (-)
Male	25	sig.	1 (-)
Separated/divorced	10	p≤0.05	2.30 (1.10-4.80)
	11	p=0.027	2.29 (1.10-4.79)
Widowed/divorced/separated	22	sig.	8.06 (3.49-18.59)
Minority racial status	6	p=0.014	1.87 (1.13-3.08)
	8	p=0.009	3.49 (1.37-8.89)
Unemployed	22	sig.	2.41 (1.09-5.32)
Moderate labour-intensive job	25	sig.	1.60 (1.10-2.30)
High labour-intensive job	25	sig.	1.80 (1.30-2.40)
Non-educated in high SED	19	sig.	-
Illiterate, speaking to relatives 2+ weekly in low SED	19	sig.	-
High levels of emotional loneliness (women only)	24	p<0.017 (Bonferroni correction)	3.75 (1.31-10.76)
Being dependent on others	18	p<0.001	3.1 (-)
Cognitive Impairments:			
Global cognition	12	p<0.001	1.91 (1.49-2.44)
MMSE score	12	p<0.001	1.07 (1.04-1.11)
Episodic memory	12	p<0.001	1.08 (1.04-1.12)
Perceptual speed	12	p<0.001	1.05 (1.02-1.07)
Experiencing communication deficits	18	p<0.01	1.60 (-)
Experiencing confusion/dementia	18	p<0.001	1.40 (-)
Concentration problems	22	sig.	3.99 (1.95-8.19)
Impaired cognitive functioning	28	p<0.001	-
ADL/IADL impairments	28	p<0.001	-
Other Abuse Subtypes - violation of personal rights[23], chronic verbal aggression[27], verbal abuse[29]			
Physical Health Problems:			
Experiencing frequent sick days	29	p<0.01	1.07 (1.03-1.11)
Individual Demographics:			
Male	29	p<0.05	1.33 (1.05-1.69)
Advanced age	23	p=0.007	-
Aged 75-79	29	p<0.01	1.61 (1.19-2.16)
External locus of control	27	sig.	1.19 (1.01-1.41)
Direct aggression	27	sig.	1.31 (1.05-1.62)

Note. Where significance values are not reported, this is denoted as 'sig.'
Where ORs are not reported, these are denoted using '-'.
Where CIs are not reported, these are denoted by '(-)'.
Study number 12: 'Global cognition' constructed as a summary measure for global cognition using a series of tests: Mini Mental State Examination (MMSE), East Boston Memory Test (episodic memory), Symbol Digit Modalities Test (perceptual speed).
Study numbers 13 and 14: Assess physical function by direct performance testing using a series of comprehensive tests: Katz Index of Activities of Daily Living (Katz ADL), Rosow-Breslau Index of Mobility, Nagi Index of Basic Physical Activities. Higher scores denote increased impairment in basic activities of daily living, mobility and basic physical activity retrospectively.

Emotional/Psychological Abuse

Two studies solely addressed emotional/psychological abuse[1,3], with twenty-one addressing this alongside other subtypes. Regarding mental health, depression was significant in increasing the risk of emotional

abuse[2,9,16,25]. In Daly, et al. (2008) prospective cohort study, American couples were interviewed using standardised and validated measures. Significant risk factors included having depressive symptoms (OR=1.05, 95% CI: 1.00-1.09; p<0.05). Similarly, Beach, et al. (2010) interviewed American older adults using CES-D and CTS-2 items. Participants at risk of depression were three times more at risk for emotional/psychological abuse than those not at risk for depression (OR=3.14; p<0.0001). However, with no CIs reported, estimating precision of the odds is difficult. Garre-Olmo, et al. (2009) interviewed a representative sample of adults aged ≥75 in Spain using the GDS-5 and the American Medical Association Screen for Various Types of Abuse or Neglect. Suspected depression increased the risk for emotional abuse (OR=1.65, 95% CI: 1.01-2.72; p<0.005). Wu, et al. (2012) interviewed 2000 older adults in China using the Chinese version of the GDS-15, the HSEAST and Vulnerability to Abuse Screening Scale. Depression was greatly associated with higher risk of emotional/psychological abuse (OR=6.90, 95% CI: 5.20-9.10). No studies found depression to decrease this risk. With low risk of bias in various domains these studies conducted worldwide provide robust evidence regarding association between depression and emotional/psychological abuse. Furthermore, high levels of anxiety increased the odds of emotional/psychological abuse (OR=1.08, 95% CI: 1.05-1.11; p<0.0001) across European countries[3].

Physical health problems were associated with emotional/psychological abuse, including substance use[3,22], sleep problems[1], somatic complaints[3], lower physical performance[13,14], chronic disease[25], physical disability[25], bladder incontinence[16], frequent sick days[29], and overall poor health[17]. Using standardised and validated tools, Macassa, et al. (2013) reported that participants who drank alcohol compared to counterparts were at increased odds (OR=1.31, 95% CI: 1.06-1.63, p<0.05). Similarly, Yadav and Paudal (2016) reported that current smoking was consistent with psychological abuse, financial abuse, and neglect. However, with bias in various domains, ascertaining study quality is difficult. No significant associations were found when addressing victim

substance use[28]. Wu, et al. (2012) reported that chronic disease (OR=1.30, 95% CI: 1.00-1.60) and physical disability (OR=1.50, 95% CI: 1.10-2.20) were associated with higher risk of emotional/psychological abuse. In Dong, et al. (2012) prospective cohort study, physical function was assessed via performance testing and self-reports, while the Chicago Health and Aging Project database provided elder abuse status. Using a series of logistic regression models to systematically consider confounding factors, lower physical performance scores (OR=1.09, 95% CI: 1.01-1.18) and higher Nagi impairments (OR=1.22, 95% CI: 1.01-1.46) were associated with greater risk of emotional/psychological abuse. Using similar methodology, Dong, et al. (2014) reported similar findings. Furthermore, lower 'global cognition' and lower perceptual speed were associated with increased risk of emotional/psychological abuse[12].

Regarding individual demographics, marital status was significant in increasing the risk for emotional abuse[1,10,11,25]. Findings from a large representative sample of Canadian older adults demonstrated that being separated or divorced increased the odds (OR=2.69, 95% CI: 1.45-4.99; $p<0.05$[11] and OR=2.70, 95% CI: 1.50-5.00; $p\leq0.01$[10]) of past-year emotional abuse compared to being married or partnered. Similarly, in Brozowski and Hall's (2004) cohort study, separated or divorced older adults faced substantially higher risk of emotional abuse in the preceding five years than their married counterparts. In multivariate logistic regressions, Wu, et al. (2012) demonstrated that being widowed, divorced, single or separated were associated with higher risk of past-year emotional/psychological mistreatment (OR=2.10, 95% CI: 1.50-2.80). With low risk of bias in various domains, these studies demonstrate that any marital status except for 'married/partnered' contributes towards increased risk of abuse within Canadian and Chinese samples. Nevertheless, Beach et al. (2010) reports that American widowed (OR=0.18; p=0.49) or never married (OR=0.12; p=0.037) respondents were at reduced risk of emotional mistreatment since turning 60, with no significant findings regarding the past six months. These differences may be accounted for by country-level variations and differing prevalence periods.

Gender was significant in increasing the risk of emotional abuse. However, this varied between female or male across studies[21,29]. Markovik and Peshevska's (2014) main hypothesis was that being female is a risk factor for all abuse subtypes. Findings from their Macedonian sample supports this; older women were one and half times (OR=1.50; p<0.01) more likely to be victims of emotional/psychological abuse in the last 12 months. Although Oh, et al. (2006) reported the same odds (OR=1.49, 95% CI: 1.19-1.86; p<0.01) for males, their study demonstrates risk of sampling and measurement bias for outcome, potentially limiting generalisability and validity. Beach, et al. (2010) identified African-American ethnicity to increase the risk of emotional abuse since 60 (OR=2.30; p<0.01). However, ethnicity nor race exerted an effect on risk of emotional, physical or sexual abuse when other contextually related variables were controlled in multivariate logistic regressions[17].

Lower age (<70 years) was associated with increased likelihood of emotional abuse in one study[6], with supporting studies[3,9,10,11] suggesting that advancing age significantly decreased the risk. Oh, et al. (2006) reported that being aged 75-79 increased the likelihood (OR=1.36, 95% CI: 1.04-1.79; p<0.05). These studies were conducted across several European countries[3], the USA[9], Canada[10,11], and South Korea[29]. Attitudes towards older adults are likely to differ across continents, potentially explaining these variations. Education level increased the risk of emotional abuse over eight times (OR=8.51, 95% CI: 1.05-68.91; p<0.05[7]). Finally, having higher antisocial personality score[2] was a risk factor for emotional abuse (OR=1.35, 95% CI: 1.04-1.74; p<0.05).

Four studies[1,6,8,17] addressed prior trauma. Crime victims faced higher risk of emotional abuse than those without prior victimisation[1]. Acierno, et al. (2010) telephone interviewing procedure of American older adults demonstrated that prior trauma increased the likelihood (OR=2.27, 95% CI: 1.47-3.51; P=0.001), with Amstadter, et al. (2011) reporting

marginally significant findings (OR=1.94, 95% CI: 0.92-4.11, p=0.082). In Hernandez-Tejada, et al. (2013) study, chi-square analyses found no ethnicity-/race-based differences regarding exposure to prior trauma, therefore no further analyses were conducted.

Financial Abuse

Two studies solely addressed financial abuse[4,5], with nineteen studies addressing this alongside other subtypes[6-9,12-16,18,19-22,24-28,29]. Regarding individual demographics, advancing age was significant in predicting financial abuse[16,18,20,26]. Garre-Olmo, et al. (2009) reported that being aged ≥85 increased the risk (OR=3.84, 95% CI: 1.70-8.68; p=0.001). Meanwhile, despite selection and measurement bias, Jackson and Hafemeister (2011) report that every year increase in age, increases the risk for financial abuse. Lindert, et al. (2012) reported that risk of financial abuse increased amongst older ages (OR=2.26, 95% CI: 1.41-3.61) within bivariate analysis, however no further data is provided within multivariate analyses. Based on APS data of reported abuse cases older aged adults were more likely to have been financially exploited than those who experienced physical, psychological, and/or financial abuse combined[26]. Nevertheless, Wood, et al. (2015) found that younger age was significantly associated with higher risk of financial abuse. However, their sample was not necessarily representative. Being male was significantly associated[5,29], whilst being African-American[9] increased the risk of financial abuse since turning 60 (OR=3.91; p<0.001).

Comijs, et al. (1999) interviewed 217 older adults from Amsterdam. Dutch versions of standardised and validated tools addressed coping style, locus of control, perceived self-efficacy and hostility, alongside items measuring past year chronic verbal aggression, physical aggression, and financial mistreatment. For financial mistreatment, significant associations were found with indirect aggression (OR=1.23, 95% CI: 1.07-1.42) and perceived self-efficacy (OR=1.11, 95% CI: 1.02-1.20). Nevertheless, study quality is unclear, with limited information regarding selection/sampling,

outcome measures, and missing data. No other study addressed these risk factors; therefore, results should be interpreted with caution.

Cognitive ability[12,26], numeracy[5], Instrumental Activities of Daily Living (IADL) difficulties[9], episodic memory and perceptual speed[12] were associated with financial abuse. Dong, et al. (2011) measured cognitive function using a series of tools. Lower 'global cognition' was associated with increased risk of financial abuse (OR=1.61, 95% CI: 1.28–2.03). Individuals who were sometimes able (OR=4.93, $p<0.05$) and unable (OR=3.78, $p<0.05$) to understand the consequences of their choices were more likely to have been financially exploited[26]. Less numerate individuals experienced financial exploitation more frequently than more numerate individuals[5]. Although these studies used varying methodology, they consistently report that cognitive impairments are associated with financial exploitation in American older adults. Studies conducted in other countries do not report any significant associations, therefore additional research is required.

Poor mental health[5] and depression[9] were associated with financial abuse. Tobiasz-Adamczyk, et al. (2014) examined health-related quality of life and domestic violence using a random sample from Krakow. They conducted separate multivariate logistic regression models for each abuse type and utilised Bonferroni Correction for multiple comparisons with a significant alpha level of <0.0017. Whilst women with low psychological health were at significantly higher risk of financial abuse, this lost significance after Bonferroni Correction. Despite clear reporting of analyses, the lack of standardised/validated tools to measure abuse and attrition bias reduces its quality. Poor physical health[5,14,22,25] was associated with increased risk of financial abuse, with similar trends across the USA, Nepal and China.

Fraga, et al. (2014) considered individual and socioeconomic variables at city- and country-level across seven European countries. Within multilevel logistic regression, whilst some individual characteristics were significant

(e.g. older age), they found a significant contribution of community-level socioeconomic indicators to explain the cross-country variation in elder abuse.

Physical Abuse

Twenty-five studies[2,6-28,29] addressed physical abuse, however, three[2,9,16] were unable to conduct analyses due to low prevalence. Furthermore, Alizadeh-Khoei, et al. (2014) found no significant associations between risk factors and physical abuse within multivariate regression.

Regarding demographics, age[6], education[29], marital status[10,11], gender[21] and personality traits[27] were associated with physical abuse. Acierno, et al. (2010) reported that lower age was significantly associated with risk of physical abuse (OR=4.10, 95% CI: 1.59-10.60; p=0.004). To support this, Burnes, et al. (2015) reported that physical abuse was significantly less likely for individuals aged 70-84 (OR=0.37, 95% CI: 0.22-0.62, p≤0.001) and ≥85 (OR=0.46, 95% CI: 0.21-1.01, p≤0.05). Burnes (2014) reported similar findings. Alike emotional abuse, similar trends are reported across countries; Canada and the USA. Oh, et al. (2006) investigated older adults in Seoul, Korea; having no education increased the likelihood of physical abuse (OR=1.55, 95% CI: 1.00-2.39, p<0.05). However, with elements of bias, this study may not be representative. Like emotional abuse, being separated or divorced is associated with physical abuse[10,11]. To support their gender-hypothesis, Markovik and Peshevska (2014) reported that older women were more likely to be victims of physical abuse (OR=2.05; p<0.05). Furthermore, when examining victim personality traits, Comijs, et al. (1999) found significant associations between palliative reaction (OR=1.24, 95% CI: 1.01-1.51) and avoidance (OR=1.26, 95% CI: 1.08-1.47) and physical aggression within multiple logistic regression.

Mental health problems[18] increase the risk of physical abuse, with depression increasing the risk over six times (OR=6.30, 95% CI: 4.80-

8.30[25]). Regarding physical health, physical performance (OR=1.12, 95% CI: 1.02-1.23; p<0.05) and Nagi impairments (OR=1.26, 95% CI: 1.00-1.58; p<0.05) increased the risk[14]. In ethnicity-based logistic regressions[17], poor health was associated with physical abuse. This was not replicated for race. Lower 'global cognition' was associated with increased risk of physical abuse [12].

Sexual Abuse

Eleven studies addressed sexual abuse[6,8,9,12-15,17,20,21,22,26]. However, four studies[8,9,14,21] reported that low prevalence provided inadequate power to examine associations, resulting in limited information about risk factors for sexual abuse. Addressing older adults across European countries using the CTS-2, the likelihood of sexual abuse was higher in individuals still working (OR=4.71, 95% CI: 1.47-15.06), when assessed in bivariate analyses[20]. However, prevalence was low, and CIs were wide. This was not reported in further multivariate analyses. Although sexual abuse was considered by Dong, et al. (2011) and Dong, et al. (2012), no results are reported, potentially due to low prevalence. Whilst increasing the risk of reporting bias, details regarding other abuse subtypes are clearly described. Acierno, et al. (2010) reported that when subjecting statistically significant risk predictors to multivariate analyses only prior trauma remained predictive of sexual mistreatment (OR=13.98, 95% CI: 1.11-175.46; p=0.041). Nevertheless, with low sample sizes these risk relationships may be tenuous, therefore should be considered preliminary. No individual characteristic was predictive of sexual abuse even after controlling for ethnicity/race and other factors[17]. Remaining studies addressed sexual abuse, but analysed this alongside other subtypes; physical abuse and injuries[15], legal harassment[22] and as overall abuse[26], therefore associations are not reported.

Neglect

Twenty-one studies addressed neglect[6-14,16,18, 19-22,24-29], two of which were unable to analyse associations due to low prevalence[9,27]. Across American

and Canadian samples using various methods[6,8,10,11,18], individuals with poor physical health were over two times more likely to be victims of neglect (e.g. OR=2.18, 95% CI: 1.42-3.37; p=0.001[6], OR=3.79, 95% CI: 1.46-9.81; p=0.006[8], OR=2.03, 95% CI: 1.13-3.63; p=0.017[11]). Furthermore, lower physical performance and higher Katz, Nagi and Rosow-Breslau scores were associated with increased risk of neglect[13,14]. Similarly, victim substance use and ADL/IADL impairments[28], communication deficits[18], and current smoking status[22] increased this risk.

Race, gender, marital, education and employment status were associated with risk of neglect. Minority racial status (e.g. non-white) was associated with increased likelihood of neglect[6,8]. Three studies reported that marital status was associated; separation or divorce increased this risk[10,11], whilst Yadav and Paudal (2016) reported that widowed, separated or divorced older adults were significantly more likely to experience neglect compared to married counterparts. Regarding education, Keskinoglu, et al. (2007) investigated risk factors amongst elderly living in two different socioeconomic districts (SED) in Izmir, Turkey. Using their own tool and face-to-face interviews, they reported that non-educated elderly were exposed to significantly greater neglect in high SED, while those who were illiterate and who spoke with relatives twice or more per week were neglected more in low SED. However, this study demonstrates risk of bias in several domains, therefore, drawing conclusions is difficult.

Employment was associated with increased risk of neglect, however this varied between unemployment[22] and moderate- and high-intensity job roles[25]. Tobiasz-Adamczyk, et al. (2014) reported that older women suffering from emotional loneliness remained at significantly higher risk of neglect following Bonferroni Correction (OR=3.72, 95% CI: 1.31-10.76; p<0.017). Finally, gender was significant in two studies; Wu, et al. (2012) reported that being male was associated with risk of neglect in China, whilst Markovik and Peshevska (2014) reported that older women were 2.1 times more likely to be victims of neglect in Macedonian research, suggesting

variation across countries. Age was not found to increase the risk of neglect, however both lower ages[18] and advancing ages[10,11] can decrease this risk. Therefore, drawing meaningful conclusions is difficult.

Regarding cognitive impairments, lower 'global cognition' was associated with increased risk of neglect (OR=1.91, 95% CI: 1.49-2.44; p<0.001), specifically, lower MMSE scores, episodic memory and perceptual speed[12]. Similarly, impaired cognitive functioning was associated with neglect[28], whilst victims with confusion/dementia were 40% more likely to be neglected than those without confusion/dementia[18]. Furthermore, having concentration problems increases this risk (OR=3.99, 95% CI: 1.95-8.19[22]). Evidently, cognitive impairments contribute towards older adults' experience of neglect, a consistent finding across research conducted worldwide. Finally, depression was found to be associated with neglect (OR=2.60, 95% CI: 1.90-3.50[25]).

Other Abuse Subtypes

Chronic verbal aggression was associated with individuals having an external locus of control (OR=1.19, 95% CI: 1.01-1.41) and displaying direct aggression (OR=1.31, 95% CI: 1.05-1.62[27]). Being male (OR=1.33, 95% CI: 1.05-1.69; p<0.05), aged 75-79 years (OR=1.61, 95% CI: 1.19-2.16; p<0.01) and experiencing frequent sick days (OR=1.07, 95% CI: 1.03-1.11; p<0.01) increased the risk of verbal abuse[29]. Finally, Yan and Tang (2004) explored risk factors for elder abuse in Chinese families using the CTS-2 with five items constructed to address violation of personal rights. Advanced age was the only significant predictor.

Risk Factors across Abuse Subtypes

Evidence indicates similarities and differences across risk factors associated with abuse subtypes. For example, depression and low physical performance were consistently found to increase the risk of emotional, physical, financial abuse and neglect. Although marital/education status,

gender and age were all associated with risk of emotional, physical, financial abuse and neglect, these varied according to whether participants were separated, divorced, widowed, single, male, female, and with varying ages and educational attainments, therefore demonstrating differences between risk factors and specific abuse subtypes. Prior trauma was found to be associated with emotional and sexual abuse. Meanwhile, cognitive impairments were present across all subtypes except for sexual abuse, with variations according to the types of tests conducted.

Discussion

This systematic review synthesised twenty-nine primary research studies addressing risk factors associated with abuse subtypes experienced by older adults, specifically focusing on individual characteristics of older adult victims.

Although several risk factors were identified, the following were reproducible across studies or demonstrated significantly higher risk. Regarding emotional/psychological abuse, depression was reproducible across four higher quality studies conducted worldwide. Four studies indicated that older adults who are not married or partnered are at increased risk of emotional/psychological abuse. Although few studies addressed prior trauma, findings suggest that this may contribute towards experiencing emotional/psychological abuse, relating to 'poly-victimisation'. Additional research is required to provide more robust results. For financial abuse, advanced age was reproducible across four studies of varying quality across countries. Cognitive impairments were consistently associated with financial exploitation across American studies. No studies demonstrated consistent risk factors for physical abuse. Although only one better quality study reported depression to increase the risk of physical abuse, the odds were over six times compared to counterparts. Five studies reported that poor physical health increased likelihood for neglect, whilst four reported cognitive impairments to increase this risk. Additional research regarding sexual abuse is required, as no significant risk factors were reproduced.

However, due to its sensitivity, addressing sexual abuse across countries worldwide can be challenging.

Evidently, mental and physical health problems, cognitive impairments and individual demographics vary according to abuse subtype across studies. Regarding gender, Markovik and Peshevska's (2014) main hypothesis was that being female is a relevant risk factor for all abuse subtypes. Whilst being female was a risk factor for emotional and physical abuse alongside neglect in their study, being male was also a risk factor for emotional and financial abuse and neglect in other studies demonstrating inconsistencies. Variations may be linked to study quality, sampling strategies, country in which samples are taken, amongst other factors.

Cultural, societal norms, attitudes and elder abuse legislation will vary across countries, impacting applicability and generalisability. For example, sexual abuse was not considered due to cultural barriers in Alizadeh-Khoei, et al. (2014) Iranian sample. Findings cannot always be generalisable to specific populations of interest. For example, some studies addressed older adults with reported abuse cases which may differ to those without reported cases. This systematic review offers a greater understanding of the risk factors that contribute towards older adults' likelihood of experiencing abuse, but caution should be implemented when generalising findings to countries of differing standards.

Generally, the findings help inform the overall thesis by focusing upon the microsystem level of the socio-ecological framework to specifically address risk factors that increase older adults' vulnerability to experiencing subtypes of abuse. These abuse subtypes are further addressed within the following chapter which examines older adults experience of mistreatment and poly-victimisation over the lifespan to further understand factors at the microsystem level. Identifying the associations between marital status, age, and gender with specific abuse subtypes further informs the overall thesis and specifically the following chapter when attempting to examine

associations between individual demographic's and experience of poly-victimisation and any victimisation at different time periods.

Limitations

Cross-sectional studies reflect association rather than causation and may be prone to non-response bias (Sedgwick, 2014), particularly when non-responders differ from responders; many studies did not explore these differences. Cohort studies are susceptible to participant loss, whilst retrospective studies introduce recall bias. Interview methods can impact engagement in research; Acierno, et al. (2003) reported that participants felt more comfortable discussing interpersonal violence via telephone rather than face-to-face interviews. Furthermore, many studies are based entirely on self-report, and since mistreatment is often underreported in this age group (Hernandez-Tejada, et al., 2013) validity may be reduced.

Studies varied considerably regarding selection, prevalence, who reported the abuse, definitions, and measures used (Cooper, et al., 2008; Macassa, et al., 2013). Several lacked detail about participant chacteristics and sampling; therefore, findings may misrepresent older adult populations. Future research should provide explicit details about these aspects, whilst obtaining representative samples. Prevalence varied across studies, potentially impacting whether risk factors reach statistical significance. Prevalence can vary according to how abuse is measured and quantified (Sooryanarayana, et al., 2013). For example, prevalence periods differed across studies which addressed abuse during the lifetime[6,8], since 60[6,8,9,17,24], past year[2,3,5,6,8,10,11,15,16,23,25,27] and/or within the past several months[9,22,29].

Exposure and outcome were obtained from databases, self-reports, and/or informant reports. Many studies did not use standardised definitions of risk factors, as such few used standardised, valid and reliable measurement tools. Similarly, studies provided varying definitions of abuse; some using standardised definitions, others using operationalised definitions within the

literature. Research and intervention strategies regarding any form of abuse depends on a definition that can withstand research operationalisation, clinical applicability, and policy formulation (Pillemer, et al., 2016). Likewise, measurement tools for abuse varied. Whilst many studies used valid and reliable tools, others constructed tools or used databases without description about how abuse was identified/quantified. Such conceptual and methodological differences can limit the extent to which comparisons can be made between studies and raises question over the confidence of findings (Lindert, et al., 2012). Despite limitations, the included studies provide valuable evidence regarding the varying risk factors that increase older adult's vulnerability to abuse subtypes.

Implications and Future Research Recommendations

Understanding individual characteristics associated with abuse subtypes has many implications. Appropriate screening tools can be developed to identify vulnerable older adults, whilst efforts can be made at each level of the socio-ecological framework to reduce/eliminate risk factors. Development of effective prevention and intervention relies upon an understanding of risk factors for abuse, specifically its subtypes. This increased understanding may aid public education campaigns and initiatives to further prevent and/or deter the progression of existing cases. Ultimately, the socio-ecological framework provides a basis for modelling risk factors at individual, relationship, community, and society levels (Pillemer, et al., 2016), therefore responses to abuse should be considered from a multi-level perspective.

Regarding future research, the socio-ecological framework advocates that elder abuse research includes the different levels to understand the complex dynamic between the victim-perpetrator relationship and environment. Studies predominantly focus on victim vulnerabilities, however perpetrator characteristics, including substance use problems, perpetrator risk, negative attitudes towards victims, alongside the victim-perpetrator relationship, are associated with increased risk of experiencing abuse

subtypes (Liu, et al., 2017). Therefore, research should consider the dynamic interplay between victim and perpetrator on various corresponding levels within the system, addressing perpetrator risk factors and the victim-perpetrator relationship across abuse types, whilst also addressing environmental factors, including how wider socio-cultural norms contribute towards elder abuse.

Conclusions

The systematic review synthesised research addressing individual characteristics as risk factors for abuse subtypes. Significant factors included mental and physical health problems, cognitive impairments, and individual demographics. Conceptual and methodological limitations identified the need for unified, standardised definitions and consistent measurement tools. Findings contribute towards greater understanding of factors that increase older adults' vulnerabilities to abuse subtypes, whilst also contributing towards prevention and intervention. Future research should address the dynamics between victim, perpetrator, and wider environment.

Chapter Four

Prevalence of Mistreatment and Poly-Victimisation in Older Adults

Abstract

Background: Elder abuse research often focuses on individual forms of mistreatment, without examining relationships among them. Poly-victimisation; the experience of multiple forms of abuse by one or more perpetrators or one form of abuse by multiple perpetrators, is understudied in older adults. Developmental changes in later life increase older adults' vulnerability. Therefore, understanding the complexities of mistreatment experienced by older adults is important.

Purpose: The research aimed to establish prevalence estimates of mistreatment and examine poly-victimisation in older women and men across the lifetime.

Method: A convenience sample of 261 UK-based older adults aged ≥60 years completed an adapted version of the R-ACE, either online or via hard copy to measure mistreatment experiences across the lifetime. Of this sample, 222 were older women, therefore making up most of the sample. Male and female data was analysed separately in order to examine differences between genders.

Results: Prevalence estimates and poly-victimisation rates varied according to mistreatment type and time period. For example, prevalence of emotional abuse ranged between 50.0-94.6% across time periods for older women and between 41.0%-92.3% for older men, whilst physical abuse ranged between 6.3%-68.0% for older women and between 5.1%-69.2% for older men. Generally, pre-60 mistreatment greatly increased the odds of experiencing the same form of mistreatment after 60 for older women, however fewer associations were established for older men. For

older women, pre-60 poly-victimisation was associated with experiencing any victimisation since 60 and within the past year. In contrast, no significant associations were established for older men when examining these variables. Further exploratory analyses were conducted upon demographic variables.

Conclusion: Although additional research is needed to understand the cumulative lifetime impact of poly-victimisation, findings contribute towards detection, prevention and intervention strategies, alongside public education campaigns.

KEYWORDS: abuse, neglect, violence, older women, victims, prevalence, poly-victimisation, socio-ecological framework.

Introduction

Chapter three presented the findings from a systematic review which identified risk factors associated with abuse subtypes, ultimately addressing factors at the microsystem level, including individual characteristics which contribute towards mistreatment of older adults. Identification of risk factors is important in understanding what makes older adults vulnerable to abuse, however, it is also important that research aims to establish prevalence estimates of mistreatment and poly-victimisation in older adults over time to better understand the extent of the problem. It is well documented that the abuse of older adults is a widespread problem (WHO, 2019), affecting individuals across all socioeconomic, religious, and cultural groups (American Psychological Association, 2012). With an ageing population, addressing elder mistreatment is crucial (O'Keeffe, et al., 2007; Rosay & Mulford, 2016), particularly since it is associated with negative outcomes, including injuries, emotional and psychological distress, hospital admission, mortality, and significant societal costs (Dong, 2015; Williams, et al., 2017).

Whilst different conceptual frameworks exist to define 'elder abuse', it is commonly suggested to be '*a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust, which causes harm or distress to an older person'*, and includes five categories: psychological, physical, sexual, and financial abuse, and neglect (Action on Elder Abuse, UK, 2019). The generic term 'elder abuse' is regularly used for any form of abuse seen within older adults (McGarry & Simpson, 2011) and often does not distinguish this from DVA. Research suggests that a significant proportion of elder abuse occurs between partners in later life, where the predominant dynamic is that of DVA (Penhale, 2003), therefore this is an important feature of mistreatment within older adults.

Prevalence of Abuse in Older Adults

Understanding the magnitude of elder abuse is a crucial first step towards prevention (Yon, et al., 2017a). However, the lack of consensus in defining and measuring abuse and its subtypes, along with varying methodologies, sampling strategies (including age ranges), has resulted in differences in reported prevalence (O'Keeffe, et al., 2007; Yon, et al., 2017a). General population studies conducted worldwide report prevalence rates between 3.2% and 27.5% (Rosay & Mulford, 2016). Few national studies have addressed the UK prevalence of elder mistreatment; O'Keeffe, et al. (2007) highlighted that the predominant type of reported mistreatment experienced by over 66-year olds in the past year was neglect (1.1%) followed by financial abuse (0.6%). Rates for psychological (0.4%), physical (0.4%), and sexual abuse (0.2%) are also reported. O'Keeffe, et al. (2007) sample addresses older adults aged over 66 to establish mistreatment and abuse in the past year since turning 65 years old.

Gender and Age Considerations

Research consistently reports gender differences regarding elder mistreatment. Many international studies highlight that older women are more likely than older men to be victims (e.g. WHO, 2011; Pillemer, et al., 2016). Findings from O'Keeffe, et al. (2007) UK prevalence study demonstrated that older women were significantly more likely to have experienced neglect and interpersonal abuse, including physical, psychological, and sexual abuse, than older men. International research further indicates that women are more likely to experience mistreatment (Laumann, et al., 2008; Markovik & Peshevska, 2014; Gil, et al., 2015). Older women may become more vulnerable to mistreatment with increased frailty, poor physical health, and cognitive impairments (Luoma, et al., 2011). Risk may be heightened due to lack of education and employment history resulting from the discrimination, oppression, and cultural barriers that women have endured worldwide (Yon, et al., 2017b).

Furthermore, according to the CSEW, women were more likely to experience DVA than men, both since the age of 16 years (28.9% compared with 13.2%) and in the past year (7.9% compared with 4.2%; Office of National Statistics [ONS], 2018). Prior to April 2017, individuals aged over 59 years were not sampled due to difficulties in obtaining data (e.g. internet access; ONS, 2016). Although the CSEW recently expanded the age range to include adults aged 16-74, reports are yet to be published due to limited data availability (ONS, 2018). Furthermore, the WHO (2013) published a report highlighting the global lifetime prevalence of DVA amongst ever-partnered women to be 30.0%. When categorised into age groups, the global prevalence for women aged 65-69 was 22.2%. However, no data is reported for women over 70, with fewer data points available for women over 49 due to sampling and data collection methods. This should not be interpreted to mean that older women have experienced lower levels of DVA than younger women; instead less is known about this age group (WHO, 2013).

Nevertheless, there are limitations regarding the way in which much violence research is conducted. For example, Walby and Towers (2017) identified that the CSEW collect a large proportion of data regarding the gender of the victim and perpetrator, but do not include this in most published data. Furthermore, the CSEW collects data on the relationship between perpetrator and victim, and although published for subsets of crimes, including DVA, it is not published in a gender disaggregated form (Walby & Towers, 2017). Subsequently this limits what can be derived and understood from any data addressing gender-based violence.

Poly-victimisation

Poly-victimisation has been extensively studied within children and adolescents, with research examining the impact of physical assault, sexual abuse, and peer victimisation amongst other factors upon health outcomes later in life (Finkelhor, et al., 2005a; Finkelhor, et al., 2009; Finkelhor, Turner, et al., 2011). Such research commonly adopts the ACE framework

and Juvenile Victimisation Questionnaire (Finkelhor, et al., 2009; Turner, et al., 2016) to measure experience and impact of childhood victimisation. In studies of youth, and to a lesser extent, non-elderly adults, the poly-victimisation framework demonstrates that the total number of types of victimisation is a better predictor of mental and physical health status than any single type of victimisation. Furthermore, experience of multiple victimisations increases the risk of additional victimisation in future (Finkelhor, et al., 2005b; Teaster, 2017).

However, poly-victimisation is understudied in older adults (Ramsey-Klawsnik & Heisler, 2014; Hamby, et al., 2016), with research often focusing on individual forms of abuse, without examining the relationships among them (Acierno et al., 2010). With many later life developmental changes, older adults are particularly vulnerable (Hamby, et al., 2016). Individual health, financial security, loneliness, social isolation, and retirement (Kane, et al., 2011) are more prominent for older adults and may alter the context in which mistreatment is experienced (Knight & Hester, 2016). Existing literature suggests that older adults are susceptible to different types of mistreatment, including but not limited to DVA, abuse from caregivers, neglect, financial exploitation (Acierno, et al., 2010), and exposure to violence (Hamby, et al., 2016).

Although the definition of poly-victimisation includes the co-occurrence of multiple types of abuse (Ramsey-Klawsnik & Heisler, 2014), some definitions consider repeatedly experiencing a single type of abuse to be poly-victimisation. Other researchers argue that when applying the poly-victimisation framework to elder abuse, attention should be paid to capturing the lifespan burden of multiple victimisations, not solely the burden of multiple, co-occurring forms of abuse in older age (Hamby, et al., 2016; Williams, et al., 2017). Ultimately, late life poly-victimisation can and does co-occur in various combinations, however it is often underreported to the authorities (Ramsey-Klawsnik & Heisler, 2014). Therefore, it is

important to understand how later life vulnerability can be linked to earlier and/or continued experiences of victimisation (Hamby, et al., 2016).

Socio-ecological Framework

The socio-ecological framework is a useful theoretical framework applying not only to elder mistreatment, but also elder poly-victimisation (Hamby, et al., 2016; Teaster, 2017). As applied to poly-victimisation in later life, the socio-ecological framework proposes that older adults are embedded within a series of environmental systems which interact with each other and with the individual to influence human development (Teaster, 2017). Addressing the microsystem allows for specific focus on understanding the forms of mistreatment older adults experience across the lifetime, particularly to establish the prevalence of mistreatment alongside experiences of poly-victimisation.

Current Research

With limited consistent research, little is known about older adults' mistreatment and poly-victimisation experiences. Therefore, the research aims to obtain a prevalence estimate of various types of mistreatment experienced by UK-based older women and older men aged ≥60 years across the lifetime: prior to 60 years old, since 60, and within the past year, and to further examine poly-victimisation, by establishing the extent and pattern of older adults experiences of multiple victimisation, including DVA, financial exploitation and neglect. Whilst doing so, the research examines any possible differences between gender, particularly since gender-based violence research has often not accounted for gender appropriately (Walby & Towers, 2017).

Method

Participants

A total of 261 UK-based adults aged ≥60 years completed the study. The sample comprised predominantly of females (n=222; 85.06%), with only 39 males (14.94%) participating within the research. Table 4 presents

characteristics of the sample by gender to demonstrate gender differences within the sample.

Of the female sample (n=222), ages ranged from 60-88 years (*M* = 66.08, *SD* = 6.20), with 170 (76.6%) participants belonging to the 60-69 year-old group, whilst 52 (23.4%) belonged to the 70-88 year-old group. At the time of data collection, 106 (47.7%) participants were married, 125 (56.3%) were retired, whilst 35.1% remained in some form of employment. There were no observable differences between older women who reported being married and those living with a partner; between divorced or separated; between participants of varying employment statuses, specifically, the unemployed group did not differ to other groups. Most participants were of white ethnicity (97.3%). Other ethnicities were underrepresented within the female sample, with only two (0.9%) participants having mixed ethnicity. However, no observable differences were established between individuals of differing ethnicities regarding abuse experiences across the lifetime. No participants identified as Asian or Black.

Of the male sample (n=39), ages ranged from 60-87 years (M = 67.23, SD = 6.19), with 27 (69.2%) belonging to the 60-69 year-old group, whilst 12 (30.8%) belonged to the 70-88 year-old group. At the time of data collection, 28 (71.8%) participants were married, 25 (64.1%) were retired, whilst 25.6% remained in some form of employment. Although the sample size was small, there were no observable differences between individuals who reported being married and those living with a partner and between participants of varying employment statuses, specifically, the unemployed group did not differ to other groups. Most male participants were of white ethnicity (97.4%). No other ethnicities were identified and are subsequently underrepresented within the male sample.

Table 4.

Demographic characteristics of older adults within the sample (n=261), separated by gender.

	Total Older Adult Sample (n=261)			
	Female Sample (n=222)		**Male Sample** (n=39)	
Age (years)				
M (SD)	*66.08*	*6.20*	*67.23*	*6.19*
60-69	170	(76.6%)	27	(69.2%)
≥70	52	(23.4%)	12	(30.8%)
Marital Status				
Married	106	(47.7%)	28	(71.8%)
Divorced	56	(25.2%)	4	(10.3%)
Widowed	32	(14.4%)	5	(12.8%)
Living with partner	17	(7.7%)	1	(2.6%)
Never married	9	(4.1%)	0	(0.0%)
Separated	2	(0.9%)	0	(0.0%)
Prefer not to say	0	(0.0%)	1	(2.6%)
Relationship Length (years)*				
M (SD)	*33.82*	*14.20*	*36.52*	*12.54*
Ethnicity				
White	216	(97.3%)	38	(97.4%)
Mixed/Multiple Ethnic Background	2	(0.9%)	0	(0.0%)
Asian/Asian British	0	(0.0%)	0	(0.0%)
Black/African/Caribbean/Black British	0	(0.0%)	0	(0.0%)
Other: Irish**	2	(0.9%)	0	(0.0%)
Prefer not to say	2	(0.9%)	1	(2.6%)
Employment Status				
Employed	58	(26.1%)	7	(17.9%)
Self-employed	20	(9.0%)	3	(7.7%)
Unemployed	7	(3.2%)	3	(7.7%)
Retired	125	(56.3%)	25	(64.1%)
Unable to work	0	(0.0%)	0	(0.0%)
Carer	4	(1.8%)	0	(0.0%)
Prefer not to say	0	(0.0%)	1	(2.6%)
Other	8	(3.6%)	0	(0.0%)

*For 'married' and 'living with a partner' only.
**Participants specified 'Irish' under 'Other Ethnicity'.

Measures

Findings from childhood mistreatment and poly-victimisation studies, such as the original ACE study have revealed that cumulative childhood trauma has profound effects later in life, being associated with negative health outcomes and future victimisation (e.g. Teaster, 2017). As identified within chapter two, ACE measures are often adapted to address specific research questions, including those addressing poly-victimisation. Therefore, experience of elder mistreatment and poly-victimisation was measured using 17-items based on the R-ACE (Finkelhor, et al., 2015), which was

adapted to address older adults. Using the R-ACE as a basis allowed for the inclusion of all forms of elder abuse as defined by Action on Elder Abuse (2019), CDC (2020b) and WHO (2019), alongside inclusion of other lifetime experiences to which an older adult may have been exposed (e.g. exposure to community violence, isolation and rejection). Items also reflected those used within O'Keeffe, et al. (2007) UK prevalence study and Williams, et al. (2017) US poly-victimisation study. However, unlike these tools, the R-ACE covers emotional and physical neglect as separate entities, both of which were considered important, particularly since older adults are likely to face different emotional and physical needs (Knight & Hester, 2016). Chapter two provides details regarding the R-ACE tool.

Items closely matched those within the R-ACE, with additional items addressing psychological and financial abuse. Respondents were asked whether they had experienced/witnessed any form of mistreatment during their lifetime: prior to 60 years old, since 60, and within the past year.

- *Items replicating the R-ACE:* Items were modified to address older adults' experiences of emotional, physical, and sexual abuse, emotional and physical neglect, isolation and rejection and exposure to community violence.
- *Psychological Abuse:* Items asked, '*Have you experienced anyone…'* (a) '*preventing you from seeing other family members or friends, or stopped you from going out?'* and (b) *'accuse you of spending too much time with other people, or become jealous of who you spend time with?'*
- *Financial Abuse:* Financial abuse is considered a prevalent form of elder abuse (Peterson, et al., 2014). Items asked, '*Have you experienced anyone…'* (a) '*spend your money or sell your property without your permission?*', (b) '*steal money from you, or take your possessions for themselves, for friends or to sell?*' and (c) '*forge your signature without your permission in order to sell your property or to get money from your bank accounts?*'.

Respondents rated items on a four-point rating scale (never, occasionally, weekly, or daily). Items were dummy coded with scores of '0' denoting never and '1' denoting experience of mistreatment. If respondents indicated experience of any of the items within each category, the variable was coded as '1' in accordance with R-ACE scoring. Cronbach's α for all mistreatment subtypes was 0.90, representing an acceptable level of reliabilty (Ford, et al., 2014). Figure 4 presents operational definitions, appendix 11 presents the adapted R-ACE.

Emotional Abuse

Have you experienced anyone…

- Swear at you, insult you, put you down or humiliate you
- Act in a way that made you afraid that you might be physically hurt

Psychological Abuse

Have you experienced anyone…

- Preventing you from seeing other family members or friends, or stopped you from going out
- Accuse you of spending too much time with other people, or become jealous of who you spend time with

Physical Abuse

Have you experienced anyone…

- Push, grab, slap, or throw something at you
- Ever hit you so hard that you had marks or were injured

Sexual Abuse

Have you experienced anyone…

- Touch or fondle you or have you touch their body in a sexual way without your consent
- Attempt to or actually have oral, anal, or vaginal intercourse with you without your consent

Financial Abuse

Have you experienced anyone…

- Spend your money or sell your property without your permission
- Steal money from you, or take your possessions for themselves, for friends or to sell
- Forge your signature without your permission in order to sell your property or to get money from your bank accounts

Emotional Neglect

Have you felt that…

- No one loves you or thinks you are important or special
- Your loved ones (family, friends) do not look out for each other, feel close to each other or support each other

Physical Neglect

Have you felt that…

- You did/do not have enough to eat or drink, or that you had/have to wear unclean clothes, and had/have no one to protect you?
- You did/do not have enough support or were not helped when you needed it (e.g. take care of you or take you to the doctors if you needed it, etc.)?

Isolation and Rejection

- Have you ever felt lonely, rejected or that nobody liked you?

Exposure to Community Violence

- Have you ever lived in a neighbourhood that was dangerous or where you saw people being assaulted?

Figure 4. Operational definitions used within the adapted R-ACE.

Sampling

Participants were recruited using convenience sampling, both online (email, online forums, social media) and via word of mouth between December 2017 and August 2018. Eighteen older adult online forums and local organisations were contacted. However only three responded; the first declined to offer help, the second requested hard copies but was uncontactable following this, with the final forum posting the recruitment message. Age UK distributed the research amongst their networks, comprising of local Age UK charities and older adult forums, in two waves via online communication (February and April 2018). The recruitment message was also shared on Twitter and through promotional advertising via a designated Facebook page, which allowed for the recruitment advert to be promoted amongst UK-based male and female Facebook users aged over 60 years old between February and June 2018. Analysis of Facebook data demonstrated that the promoted page reached 18,988 older adults in total, predominantly being seen by females (approximately 85% compared to approximately 15% of males), with 1106 individuals clicking the link to access the online survey. Most participants were recruited online (n=246). The overall completion rate was 46.1% (online completion rate: 45.7%; paper-based copy completion rate: 53.3%).

Procedure

Participants recruited online received recruitment messages via email and social media. Participants were provided with a survey link. Recruited participants were encouraged to share the study with others. For those without internet access, hard copy documents were provided through community groups and other organisations working for/with older adults. Pre-paid return address envelopes were provided. To further increase accessibility, participants were also offered the opportunity to undertake a telephone interview, however no participants were interviewed. Although procedural differences existed between online and paper-based methods, all participants received relevant study information, demographic questions, and the R-ACE. Participants provided consent after reading the information sheet and consent form which stipulated details of the study,

including confidentiality and rights to withdraw at any time. For those completing the online survey, consent was provided by participants ticking the consent box displayed on the survey website with a statement to confirm that they agree to complete the study based on the information provided (with no signature required). For those completing hard-copy documents, consent was provided by ticking the consent box to agree to complete the research alongside providing a signature. Participants were given a detailed debrief following completion; this contained details of age-related and DVA helplines.

Exclusions: Fourteen datasets were excluded as participants did not meet the inclusion criteria based on country of residency (the research aimed to address UK-based older adults only). Five participants who completed paper-based copies did not provide consent, along with one online dataset, therefore these were excluded. Figure 5 presents a flowchart of the study process.

Ethics

The research was reviewed and approved by The University of Nottingham's Faculty of Medicine and Health Sciences Ethics Committee. Ethical considerations were addressed, with study details being provided through information sheets, consent forms and a debrief. Participants were informed that data would remain anonymous and confidential and were free to withdraw at any time. Since elder mistreatment is a sensitive topic, participants were provided with details of relevant support services and helplines available, including The Samaritans, Women's Aid, Age UK Advice and Refuge.

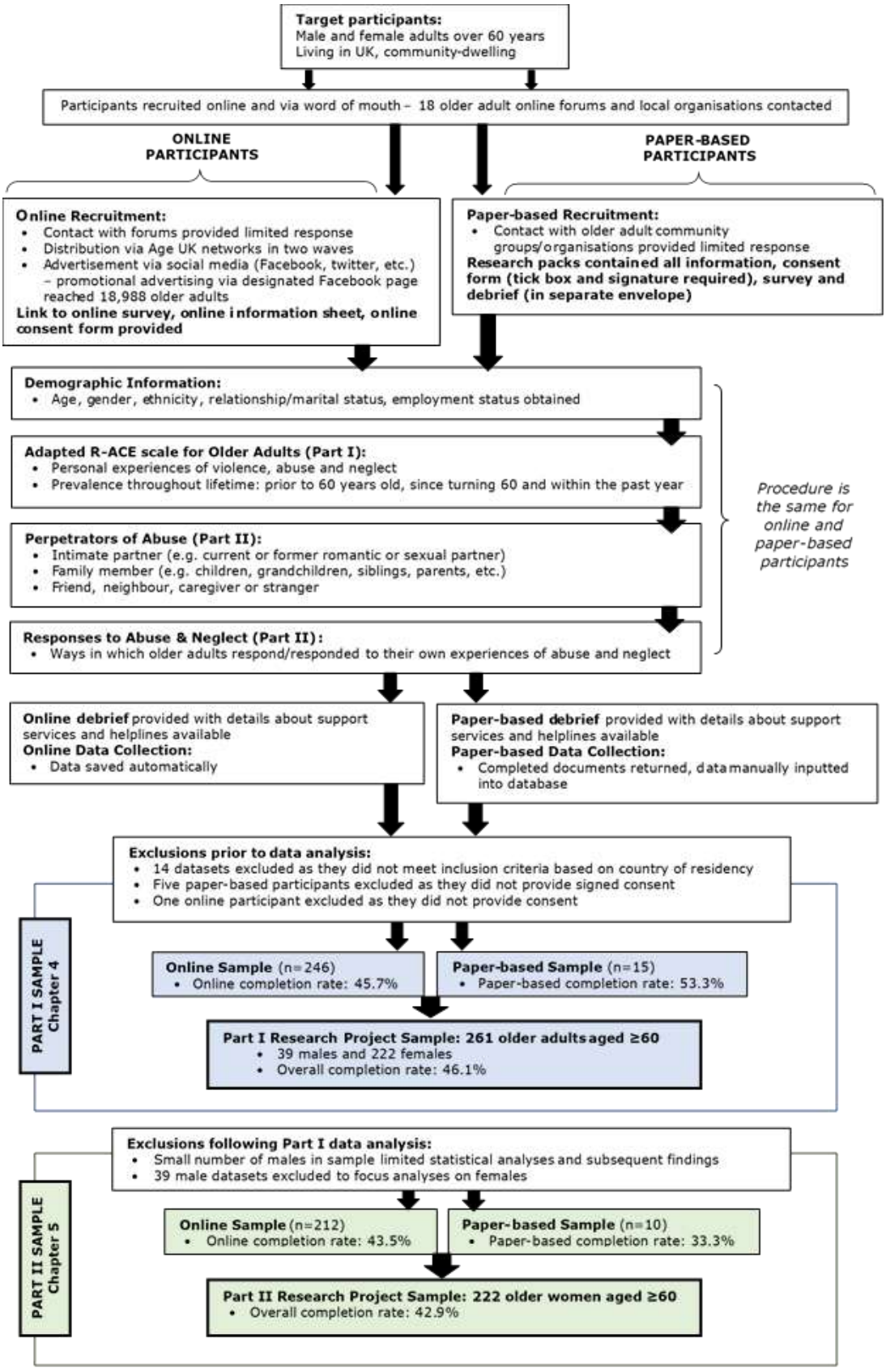


Figure 5. Flowchart presenting study process (includes process for Primary Research Part II, chapter five presented in green).

Data Analysis

Analyses were conducted using Statistical Package for the Social Sciences (SPSS). Statistical analyses addressed the various combinations of poly-victimisation in older adults, e.g. experience of multiple, co-occurring forms of abuse; repeatedly experiencing a single form of abuse; and the lifetime experience of victimisation. To identify any similarities and differences within older adults' experiences of mistreatment across time, separate data analyses were conducted upon the female and male datasets. This is in line with the gender mainstreaming approach as outlined by Walby and Towers (2017) and allows for increased understanding about differences between genders. Research has consistently identified gender differences within mistreatment experiences (Penhale, 2003, Allcock, 2018), therefore conducting separate analyses aimed to ensure that any observable differences between male and female respondents were highlighted, in order to reduce any potential confounding factors caused by gender if analysed together.

Descriptive statistics examined demographic information. Consistent with prior publications addressing this topic (Acierno et al., 2010; Amstadter, et al., 2011; Williams, et al., 2017), age was collapsed into a dichotomous variable representing 60-69 year-olds and ≥70 year-olds. Frequency distributions were computed to obtain prevalence estimates of mistreatment in older adults. Frequency distributions were also used to establish prevalence of single and poly-victims defined as having experienced two or more forms of mistreatment to address experience of multiple co-occurring forms of abuse.

Bivariate statistical analyses were performed by means of the chi-square test which measured associations between time period (pre-60, since 60, past year) and mistreatment types. This addressed the concept of repeatedly experiencing a single form of abuse. Chi-square analyses were also conducted to examine whether pre-60 poly-victimisation contributed towards any victimisation since 60 and within the past year, which aimed

to capture the experience of multiple victimisations across the lifespan. Further exploratory analyses were conducted upon participant demographics and victimisation variables. Odds ratios and 95% confidence intervals (CI) are presented. Imputation methods were used for missing data, however less than 2.5% of the sample contained missing values. Missing values were only present within paper-based datasets. Online datasets contained no missing values, potentially due to the strict survey logic.

Results

Prevalence of Mistreatment

Prevalence estimates for pre-60, since 60 and past year overall mistreatment and mistreatment subtypes in older women and older men are presented in Table 5. Past year prevalence for older women's experience of overall mistreatment was 81.1%. Although this estimate is high, the total prevalence was calculated by establishing the percentage of older women who reported at least one form of mistreatment during the past year. This is compared to older men's experience of overall mistreatment at 71.8% as established within the significantly smaller male sample (n=39). Emotional abuse and emotional neglect were the most commonly reported within the past year for both older women (50.0% and 56.8% respectively) and older men (41.0% and 41.0% respectively). For emotional abuse, the experience of being sworn at, insulted and humiliated largely contributed towards this increased prevalence for older women (48.6%) and older men (38.5%). For emotional neglect, feeling unloved (41.4%) and unsupported (44.1%) were indicated relatively equally for older women. Past year prevalence for psychological abuse was 23.9% for older women and 23.1% for older men. For older women accusations and jealousy of who they spent time with largely contributed (20.7%) towards this overall prevalence.

For older women pre-60 prevalence for any form of physical abuse was 68.0%, with past year prevalence being considerably lower (6.3%). Similarly, for older men pre-60 prevalence of any form of physical abuse

was 69.2%, with past year prevalence being considerably lower (5.1%). Older men reported experiencing injury from physical abuse more frequently than older women prior to turning 60 (56.4% compared to 42.8%). For older women past year prevalence for sexual abuse was relatively low within the sample (3.6%) and was alike prevalence since turning 60 (4.1%). However more than half of the older women within the sample indicated experiencing sexual abuse prior to 60 (61.3%), predominantly in the form of forced sexual acts (57.2%). This is considerably different to older men within the sample, whereby older men reported fewer experiences of sexual abuse prior to 60 (20.5%) than older women, with only one older man reporting sexual abuse since turning 60 (2.6%) and in the past year (2.6%).

For older women, past year prevalence for financial abuse was 4.1%, whilst pre-60 prevalence and since 60 prevalence estimates were 34.2% and 8.1% respectively. Rates for financial abuse were relatively similar across time periods for older men. For older women prevalence of physical neglect in the past year (14.9%) and since 60 (16.2%) were similar, with pre-60 physical neglect prevalence estimates being 30.6%. Overall prevalence of physical neglect differed for older men prior to 60, with only 17.9% indicating experience of physical neglect. Over two-thirds (71.2%) of older women reported experiencing isolation and rejection before 60. Although this estimate reduces after turning 60 (47.3%), past year prevalence of isolation and rejection remained at 43.7%. Older men reported experiencing isolation and rejection less frequently than older women prior to 60 (56.4%), which reduces after turning 60 (28.2%) and within the past year (28.2%). For older women, exposure to community violence decreased overtime, whereby 30.6% of participants indicated exposure before 60, 9.5% indicated exposure since 60, whilst past year prevalence was 5.9%. Similar patterns were found for older men across time periods, although older men generally indicated experiencing exposure to community violence more frequently than older women.

Table 5.

Prevalence estimates by gender; females (n=222) and males (n=39) of overall mistreatment and subtypes by time frame.

	Females (n=222)						Males (n=39)					
	Pre-60 Prevalence		Since 60 Prevalence		Past-Year Prevalence		Pre-60 Prevalence		Since 60 Prevalence		Past-Year Prevalence	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Emotional Abuse												
Overall	210	(94.6%)	144	(64.9%)	111	(50.0%)	36	(92.3%)	25	(64.1%)	16	(41.0%)
Swear, insult, humiliate	203	(91.4%)	140	(63.1%)	108	(48.6%)	35	(89.7%)	22	(56.4%)	15	(38.5%)
Threats, fear of physical abuse	161	(72.5%)	51	(23.0%)	34	(15.3%)	29	(74.4%)	8	(20.5%)	5	(12.8%)
Psychological Abuse												
Overall	139	(62.6%)	69	(31.1%)	53	(23.9%)	22	(56.4%)	11	(28.2%)	9	(23.1%)
Preventing actions	68	(30.6%)	24	(10.8%)	16	(7.2%)	9	(23.1%)	5	(12.8%)	4	(10.3%)
Accusations	130	(58.6%)	57	(25.7%)	46	(20.7%)	18	(46.2%)	8	(20.5%)	5	(12.8%)
Physical Abuse												
Overall	151	(68.0%)	39	(17.6%)	14	(6.3%)	27	(69.2%)	5	(12.8%)	2	(5.1%)
Push, grab, slap, throw	144	(64.9%)	37	(16.7%)	14	(6.3%)	25	(64.1%)	3	(7.7%)	2	(5.1%)
Injured	95	(42.8%)	10	(4.5%)	5	(2.3%)	22	(56.4%)	2	(5.1%)	0	(0.0%)
Sexual Abuse												
Overall	136	(61.3%)	9	(4.1%)	8	(3.6%)	8	(20.5%)	1	(2.6%)	1	(2.6%)
Forced sexual acts	127	(57.2%)	7	(3.2%)	8	(3.6%)	7	(17.9%)	1	(2.6%)	1	(2.6%)
Forced intercourse	79	(35.6%)	4	(1.8%)	3	(1.4%)	3	(7.7%)	0	(0.0%)	0	(0.0%)
Financial Abuse												
Overall	76	(34.2%)	18	(8.1%)	9	(4.1%)	16	(41.0%)	3	(7.7%)	1	(2.6%)
Spent money, sold property	42	(18.9%)	10	(4.5%)	5	(2.3%)	8	(20.5%)	3	(7.7%)	1	(2.6%)
Stolen money/property	70	(31.5%)	12	(5.4%)	6	(2.7%)	16	(41.0%)	2	(5.1%)	0	(0.0%)
Forged signature	13	(5.9%)	3	(1.4%)	2	(0.9%)	1	(2.6%)	0	(0.0%)	0	(0.0%)
Emotional Neglect												
Overall	163	(73.4%)	130	(58.6%)	126	(56.8%)	23	(59.0%)	16	(41.0%)	16	(41.0%)
Unloved	140	(63.1%)	96	(43.2%)	92	(41.4%)	20	(51.3%)	12	(30.8%)	11	(28.2%)
Loved ones do not support	125	(56.3%)	105	(47.3%)	98	(44.1%)	18	(46.2%)	15	(38.5%)	15	(38.5%)
Physical Neglect												
Overall	68	(30.6%)	36	(16.2%)	33	(14.9%)	7	(17.9%)	6	(15.4%)	4	(10.3%)
Lack of food, clothes, protection	35	(15.8%)	34	(15.3%)	7	(3.2%)	4	(10.3%)	1	(2.6%)	2	(5.1%)
Lack of support	65	(29.3%)	7	(3.2%)	30	(13.5%)	5	(12.8%)	6	(15.4%)	4	(10.3%)
Isolation and rejection												
Overall	158	(71.2%)	105	(47.3%)	97	(43.7%)	22	(56.4%)	11	(28.2%)	11	(28.2%)
Exposure to community violence												
Overall	68	(30.6%)	21	(9.5%)	13	(5.9%)	15	(38.5%)	5	(12.8%)	2	(5.1%)
Overall Mistreatment*	**217**	**(97.7%)**	**193**	**(86.9%)**	**180**	**(81.1%)**	**39**	**(100.0%)**	**31**	**(79.5%)**	**28**	**(71.8%)**

Note. 'Overall' for each subtype was calculated by establishing participants who had experienced at least one item within the subscale. *Overall Mistreatment depicts overall prevalence of any form of abuse experienced by older women and older men within each time period.

Poly-victimisation

Prevalence of single-victimisation and poly-victimisation across time periods

Table 6 presents prevalence estimates of each mistreatment category among older adult single- and poly-victims across time periods. Results demonstrate that more older adults reported experiencing multiple forms of abuse as opposed to single victimisation during the past-year. In the past-year, 24.3% (*n*= 54) of older women reported experiencing one form of mistreatment, with 81.1% (*n*= 180) experiencing more than one form of mistreatment (e.g. poly-victimisation). More specifically, for older women, 18.0% (*n*=40) reported two forms of mistreatment, 20.3% (*n*=45) reported three forms, 9.9% (*n*=22) reported four forms, 4.1% (*n*=9) reported five forms, 4.1% (*n*=9) reported six forms and 0.5% (*n*=1) reporting eight forms. Meanwhile, in the past year, 25.6% (*n*=10) of older men reported experiencing one form of mistreatment, with 71.8% (*n*= 28) experiencing poly-victimisation. More specifically, for older men, 25.6% (*n*=10) reported two forms of mistreatment, 7.7% (*n*=3) reported three forms, 7.7% (*n*=3) reported four forms, 2.6% (*n*=1) reported five forms and 2.6% (*n*=1) reported six forms. No older men reported more than six forms of mistreatment.

Among older women poly-victims, emotional neglect (50.0%, *n*=111), isolation and rejection (41.4%, *n*=92), and emotional abuse (39.6%, *n*=88) with at least one other form of mistreatment were the most commonly endorsed within the past year. Although a similar pattern was established for older male poly-victims, whereby emotional neglect, emotional abuse and isolation and rejection with at least one other form of mistreatment were most commonly endorsed, rates of past-year poly-victimisation in older men were fewer (e.g. emotional neglect: 33.3%, *n*=13; emotional abuse: 28.2%, *n*=11; isolation and rejection: 25.6%, *n*= 10). Furthermore, psychological abuse with at least one other form of mistreatment was more commonly identified within older male poly-victims (23.1%, *n*=9) compared to other forms of mistreatment. Similarly, emotional abuse and emotional

neglect were the most commonly endorsed single form of abuse during the past year for older women (emotional abuse: 10.8%, *n*=24; emotional neglect 7.2%, *n*=16) and older men (emotional abuse: 12.8%, *n*=5; emotional neglect 7.7%, *n*=3). Lower rates of exposure to community violence (older women: 5.4%, *n*=12; older men: 5.1%, *n*=2), physical (older women: 6.3%, *n*=14; older men: 5.1%, *n*=2) and financial (older women: 3.6%, *n*=8; older men 2.6%, *n*=1) abuse were observed amongst poly-victims within the past year. Whilst eight (3.6%) older women reported sexual violence with at least one other form of mistreatment, no older men reported sexual violence with any other form of mistreatment in the past year.

For both older women and older men, the rates of poly-victimisation reported in the past year and since 60 were considerably lower than the rates of poly-victimisation reported prior to 60. More than half the participants reported experiencing psychological and physical abuse, emotional neglect and isolation and rejection along with at least one other form of abuse prior to 60 years old, with 202 (91.0%) older women and 36 (92.3%) older men reporting experiencing emotional abuse with at least one other form of abuse prior to 60 years old. Findings revealed that 136 (61.3%) older women reported experiencing sexual abuse with at least one other form of abuse prior to 60 compared to only eight (20.5%) older men.

Table 6.

Prevalence estimates of mistreatment categories among older adult single and poly-victims across time periods, by gender.

	Pre-60 Prevalence				**Since 60 Prevalence**				**Past-Year Prevalence**			
	Single Victimisation		Poly-Victimisation*		Single Victimisation		Poly-Victimisation*		Single Victimisation		Poly-Victimisation*	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
						Females (n=222)						
Emotional Abuse	7	(3.2%)	202	(91.0%)	23	(10.4%)	121	(54.5%)	24	(10.8%)	88	(39.6%)
Psychological Abuse	0	(0.0%)	139	(62.6%)	3	(1.4%)	66	(29.7%)	6	(2.7%)	48	(21.6%)
Physical Abuse	0	(0.0%)	151	(68.0%)	0	(0.0%)	39	(17.6%)	0	(0.0%)	14	(6.3%)
Sexual Abuse	0	(0.0%)	136	(61.3%)	0	(0.0%)	9	(4.1%)	0	(0.0%)	8	(3.6%)
Financial Abuse	0	(0.0%)	76	(34.2%)	0	(0.0%)	18	(8.1%)	1	(0.5%)	8	(3.6%)
Emotional Neglect	1	(0.5%)	162	(73.0%)	11	(5.0%)	119	(53.6%)	16	(7.2%)	111	(50.0%)
Physical Neglect	0	(0.0%)	68	(30.6%)	1	(0.5%)	36	(16.2%)	1	(0.5%)	33	(14.9%)
Isolation and Rejection	0	(0.0%)	158	(71.2%)	4	(1.8%)	101	(45.5%)	5	(2.3%)	92	(41.4%)
Exposure to Community Violence	0	(0.0%)	67	(30.2%)	1	(0.5%)	20	(9.0%)	1	(0.5%)	12	(5.4%)
						Males (n=39)						
Emotional Abuse	2	(5.1%)	36	(92.3%)	5	(12.8%)	20	(51.3%)	5	(12.8%)	11	(28.2%)
Psychological Abuse	0	(0.0%)	22	(56.4%)	0	(0.0%)	11	(28.2%)	0	(0.0%)	9	(23.1%)
Physical Abuse	0	(0.0%)	27	(69.2%)	0	(0.0%)	5	(12.8%)	0	(0.0%)	2	(5.1%)
Sexual Abuse	1	(2.6%)	8	(20.5%)	1	(2.6%)	0	(0.0%)	1	(2.6%)	0	(0.0%)
Financial Abuse	0	(0.0%)	16	(41.0%)	0	(0.0%)	3	(7.7%)	0	(0.0%)	1	(2.6%)
Emotional Neglect	1	(2.6%)	22	(56.4%)	2	(5.1%)	14	(35.9%)	3	(7.7%)	13	(33.3%)
Physical Neglect	0	(0.0%)	7	(17.9%)	0	(0.0%)	6	(15.4%)	0	(0.0%)	4	(10.3%)
Isolation and Rejection	0	(0.0%)	22	(56.4%)	1	(2.6%)	10	(25.6%)	1	(2.6%)	10	(25.6%)
Exposure to Community Violence	0	(0.0%)	15	(38.5%)	0	(0.0%)	5	(12.8%)	0	(0.0%)	2	(5.1%)

*Poly-victimisation defined as having experienced two or more forms of abuse.

Experience of Abuse Pre-60, Since 60 and in the Past Year

The results of chi-square analyses used to establish associations between experiencing overall mistreatment and mistreatment subtypes prior to 60 alongside their corresponding mistreatment types since turning 60 and within the past-year are presented in Table 7 for older women and Table 8 for older men. Odds ratios and 95% CIs are presented for all analyses, except analyses where observed values were zero demonstrating low prevalence of mistreatment types at specific time periods. The Fisher's exact test was used for analyses with expected frequencies lower than five and where the sample was small.

For older women within the sample, chi-square analyses revealed that experience of overall mistreatment and each mistreatment subtype before 60 was significantly associated with experiencing the same form of mistreatment since 60, except for emotional [$X^2(1, N=222) = 3.06$, $p=.110$] and sexual abuse [$X^2(1, N=222) = 3.02$, $p=.159$]. When addressing pre-60 mistreatment and past-year mistreatment, chi-square analyses revealed significant associations in experiencing overall mistreatment and all forms of mistreatment except sexual abuse [$X^2(1, N=222) = 2.41$, $p=.155$]. Odds ratios for significant associations demonstrate that the presence of mistreatment prior to 60 greatly increases the odds of experiencing the same mistreatment type since 60, and within the past year. These odds ratios may overestimate the relationship between variables, particularly since analyses are not dealing with rare outcomes and instead the outcome of interest is commonly occurring within the sample. However, it does provide preliminary findings regarding older women's experiences of mistreatment across the lifetime.

For older men within the sample, chi-square analysis could not be conducted on overall mistreatment across time periods, as observed values were zero. Therefore, establishing whether experience of overall mistreatment before 60 was associated with overall mistreatment since 60 and within the past year is not possible due to low prevalence within the

sample. Chi-square analyses revealed that experience of psychological abuse, emotional neglect, physical neglect and isolation and rejection before 60 were significantly associated with experiencing the same form of mistreatment since 60 and within the past year. Odds ratios for significant associations demonstrate that the presence of mistreatment prior to 60 increases the odds of experiencing the same mistreatment type since 60, and within the past year. Like the female sample, these odds ratios may overestimate the relationship between variables. Furthermore, several observed values were zero, resulting in corresponding odds ratios and 95% CIs not being calculated, ultimately providing limited information about older male's experience of mistreatment across time periods, and therefore limiting information regarding experience of poly-victimisation.

Table 7.

Bivariate analyses demonstrating association between overall mistreatment and subtypes prior to 60 years with the same form of mistreatment since 60 and within the past year for older women (n=222).

		Since 60 Abuse (n=222)					**Past Year Abuse** (n=222)				
		Experience of abuse since 60		X^2			Experience of abuse in past year		X^2		
Pre-60 Abuse	N	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*
Overall Abuse											
No	5	0	(0.0%)				1	(20.0%)	1		
Yes	217	144	(66.4%)	-		.005*	179	(82.5%)	18.84	(2.05-173.32)	.005*
Emotional Abuse											
No	12	1	(8.3%)	1			0	(0.0%)			
Yes	210	68	(32.4%)	5.27	(0.67-41.63)	.110*	111	(52.9%)	-		<.001*
Psychological Abuse											
No	83	5	(6.0%)	1			4	(4.8%)	1		
Yes	139	64	(46.0%)	13.31	(5.08-34.90)	<.001	49	(33.2%)	10.75	(3.71-31.13)	<.001
Physical Abuse											
No	71	6	(8.5%)	1			0	(0.0%)			
Yes	151	33	(21.9%)	3.03	(1.21-7.61)	.022	14	(9.3%)	-		.006*
Sexual Abuse											
No	86	1	(1.2%)	1			1	(1.2%)	1		
Yes	136	8	(5.9%)	5.31	(0.65-43.25)	.159*	7	(5.1%)	4.61	(0.56-38.16)	.155
Financial Abuse											
No	146	3	(2.1%)	1			1	(0.7%)	1		
Yes	76	15	(19.7%)	11.72	(3.27-41.96)	<.001	8	(10.5%)	17.06	(2.09-139.13)	.001*
Emotional Neglect											
No	59	3	(5.1%)	1			4	(6.8%)	1		
Yes	163	127	(77.9%)	65.85	(19.46-222.83)	<.001	122	(74.8%)	40.91	(13.97-119.87)	<.001
Physical Neglect											
No	154	4	(2.6%)	1			3	(1.9%)	1		
Yes	68	32	(47.1%)	33.33	(11.08-100.26)	<.001	30	(44.1%)	39.71	(11.51-137.18)	<.001
Isolation & Rejection											
No	64	8	(12.5%)	1			4	(6.3%)	1		
Yes	158	97	(61.4%)	11.13	(4.97-24.95)	<.001	93	(58.9%)	21.46	(7.43-61.98)	<.001
Exposure to Community Violence											
No	154	2	(1.3%)	1			1	(0.6%)	1		
Yes	68	19	(27.9%)	29.47	(6.63-131-04)	<.001	12	(17.6%)	32.79	(4.17-257.97)	<.001*

Note. Unexposed group used as baseline. Associations are examined between each pre-60 mistreatment category and the same mistreatment category for since 60 and past year. *Denotes *p* values obtained via Fisher's exact test.

Table 8.

Bivariate analyses demonstrating association between overall mistreatment and subtypes prior to 60 years with the same form of mistreatment since 60 and within the past year for older men (n=39).

		Since 60 Mistreatment (n=39)					**Past-Year Mistreatment** (n=39)				
		Experience of mistreatment since 60		X^2			Experience of mistreatment in past year		X^2		
Pre-60 Mistreatment	N	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*
Overall Mistreatment											
No	0	0					0	(0.0%)	1		
Yes	39	31	(79.5%)	-		-	28	(71.8%)	-		-
Emotional Abuse											
No	3	1	(33.3%)	1			0	(0.0%)	1		
Yes	36	24	(66.7%)	4.00	(0.33-48.66)	.289*	16	(44.4%)	-		.255*
Psychological Abuse											
No	17	0	(0.0%)	1			0	(0.0%)	1		
Yes	22	11	(50.0%)	-		.001*	9	(40.9%)	-		.002*
Physical Abuse											
No	12	0	(0.0%)	1			0	(0.0%)	1		
Yes	27	5	(18.5%)	-		.299*	2	(7.4%)	-		1.00*
Sexual Abuse											
No	31	0	(0.0%)	1			0	(0.0%)	1		
Yes	8	1	(12.5%)	-		.205*	1	(12.5%)	-		.205*
Financial Abuse											
No	23	0	(0.0%)	1			0	(0.0%)	1		
Yes	16	3	(18.8%)	-		.061*	1	(6.3%)	-		.410*
Emotional Neglect											
No	16	1	(6.3%)	1			1	(6.3%)	1		
Yes	23	15	(65.2%)	28.13	(3.21-253.47)	<.001	15	(65.2%)	28.13	(3.12-253.47)	<.001
Physical Neglect											
No	32	2	(6.3%)	1			1	(3.1%)	1		
Yes	7	4	(57.1%)	20.00	(2.52-158.68)	.006*	3	(42.9%)	23.25	(1.93-280.77)	.014*
Isolation & Rejection											
No	17	1	(5.9%)	1			1	(5.9%)	1		
Yes	22	10	(45.5%)	13.33	(1.50-118.86)	.011*	10	(45.5%)	13.33	(1.50-118.86)	.011*
Exposure to Community Violence											
No	24	1	(4.2%)	1			0	(0.0%)	1		
Yes	15	4	(26.7%)	8.36	(0.83-83.93)	.062*	2	(13.3%)	-		.142*

Note. Unexposed group used as baseline. Associations are examined between each pre-60 mistreatment category and the same mistreatment category for since 60 and past year. *Denotes *p* values obtained via Fisher's exact test.

Pre-60 Poly-victimisation and Victimisation Since 60

For older women, bivariate analyses demonstrated that pre-60 poly-victimisation was associated with experience of any victimisation since 60 (Table 9), with Fisher's exact test demonstrating significance (p=.005; two sided). Specifically, findings indicated that experiencing multiple forms of mistreatment prior to aged 60 increased the risk of experiencing any victimisation after 60 years (OR=9.91, 95% CI: 3.06-32.16, p=.005). However, confidence intervals are wide, which may limit precision and power of the results. In contrast, for older men, bivariate analyses revealed no significant associations between pre-60 poly-victimisation and experience of any victimisation since 60 (Table 10).

Pre-60 Poly-victimisation and Victimisation in the Past Year

Furthermore, for older women, bivariate analyses demonstrated that pre-60 poly-victimisation was associated with experience of any victimisation in the past year, with Fisher's exact test demonstrating significance (p<.001; two sided; Table 9). Findings revealed that experiencing multiple forms of mistreatment prior to 60 greatly increased the risk of experiencing further victimisation within the past year (OR=18.44, 95% CI: 4.81-70.70, p <.001). Whilst confidence intervals are wide, findings indicate a relationship between pre-60 poly-victimisation and past year victimisation. In contrast, when addressing the male sample, bivariate analyses revealed no significant associations between pre-60 poly-victimisation and experience of any victimisation within the past year (Table 10).

Table 9.

Bivariate analyses demonstrating association between poly-victimisation prior to 60 years and victimisation since 60 and within the past year for older women (n=222).

			Since 60 Victimisation (n=222)				**Past-Year Victimisation** (n=222)				
			Presence of victimisation since 60		X^2		Presence of victimisation in past year			X^2	
	N	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*
Pre-60 Poly-Victimisation											
No/Single Victimisation	13	6	(46.2%)	1			3	(23.1%)	1		
Poly-Victimisation	209	187	(89.5%)	9.91	(3.06-32.16)	.005*	177	(84.7%)	18.44	(4.81-70.70)	<.001*

Note. Unexposed group used as baseline.
*Denotes *p* values obtained via Fisher's exact test.

Table 10.

Bivariate analyses demonstrating association between poly-victimisation prior to 60 years and victimisation since 60 and within the past year for older men (n=39).

			Since 60 Victimisation (n=39)				**Past-Year Victimisation** (n=39)				
			Presence of victimisation since 60		X^2		Presence of victimisation in past year			X^2	
	N	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*
Pre-60 Poly-Victimisation											
No/Single Victimisation	4	2	(50.0%)	1			2	(50.0%)	1		
Poly-Victimisation	35	29	(82.9%)	4.83	(0.56-41.41)	.180*	26	(74.3%)	2.89	(0.35-23.63)	.562*

Note. Unexposed group used as baseline.
*Denotes *p* values obtained via Fisher's exact test.

Further Exploration

Previous research demonstrates that age (Lindert, et al., 2012), ethnicity (Amstadter, et al., 2011) and marital status (Biggs, et al. 2009) are associated with elder mistreatment and its subtypes. This is also identified within the systematic review in chapter three. Therefore, additional chi-square analyses examined the relationship between demographic variables upon poly-victimisation and any victimisation across time periods for older women and older men within the sample.

Results indicate that older women over 70 were less likely to experience past year poly-victimisation (OR=0.47, 95% CI: 0.25-0.87, *p* =.016; Table 11). Williams, et al. (2017) report similar findings, whereby fewer over 70s experienced past year poly-victimisation compared to those with no or

single victimisation. However, no significant association was established between older women's age and any victimisation within the past year. For older men, no significant associations were established for age and past year poly-victimisation nor any victimisation. Regarding age and experience of poly-victimisation and any victimisation since 60, it is recognised that individuals over 70 have lived longer than those within the 60-69-year-old group, having the opportunity to be exposed to and accumulate more experiences of abuse. However, there were no significant associations established between age and poly-victimisation and any victimisation since 60 for both older women and older men. Therefore, no further advanced analyses where conducted to control for age upon the association between pre-60 poly-victimisation and victimisation since 60 and within the past year.

Since the sample predominantly consisted of older adults of white ethnicity, this was not addressed in exploratory analyses. Consistent with prior research (e.g. Burnes, et al., 2015) marital status was collapsed into four categories representing married/partnered, separated/divorced, widowed, and never married for exploratory analyses. No significant associations were established between marital status and past year poly-victimisation nor past year victimisation for both older women and older men. Likewise, no significant associations were found between marital status and since 60 poly-victimisation and any victimisation across the sample. As associations were generally not significant, no further advanced analyses were conducted on demographic information.

Table 11.

Bivariate analyses demonstrating association between age and past year poly-victimisation and past year victimisation of any form of mistreatment in older women (n=222).

		Past-Year Poly-Victimisation (n=222)					**Past-Year Victimisation** (n=222)				
		Experience of poly-victimisation in past year			X^2		Experience any victimisation in past year			X^2	
	N	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*
Age (years)											
60-69	170	104	(96.5%)	1			142	(83.5%)	1		
≥70	52	22	(42.3%)	0.47	(0.25-0.87)	.016	38	(73.1%)	0.54	(0.26-1.17)	.092

Note. 60-69 year age group used as baseline.

Discussion

The research addressed older adult's experiences of different forms of mistreatment over the lifetime: before 60, since 60 and within the past year. A convenience sample of 261 older adults completed an online or paper-based survey in order to obtain prevalence estimates of mistreatment, and examine experience of multiple, co-occurring victimisation, repeated experience of single victimisation, alongside the lifetime accumulation of victimisation, all pertaining to poly-victimisation. Whilst doing so, the research examined differences between gender by analysing female and male data separately. The sample predominantly consisted of older women, with only 39 older men participating within the research. Due to the small number of males within the sample, some statistical analyses could not be conducted effectively and/or provided limited results, therefore drawing meaningful conclusions regarding older male's experiences of mistreatment and poly-victimisation is challenging. As such further research is needed to examine male experiences. Nevertheless, analysis of data within the large sample of females provides potentially useful preliminary findings regarding female experiences of mistreatment.

For both older women and older men the results demonstrate considerable differences in the prevalence of mistreatment across the lifetime. Past year

prevalence estimates for older women's overall mistreatment was 81.1%, with emotional abuse and emotional neglect being the most commonly endorsed. Within the small male sample, findings demonstrate that overall mistreatment was less commonly reported (71.8%), however like the female sample, emotional abuse and emotional neglect were the most endorsed. Pre-60 prevalence estimates for any form of mistreatment were considerably higher than since 60 and past year estimates for older adults within the sample. This decrease in prevalence across the lifetime is consistent with previous research in larger samples (Acierno, et al., 2010; Amstadter, et al., 2011). Such findings contradict theories such as the caregiver stress theory, which suggests that elder abuse occurs due to the aging victims increasing vulnerability and dependence on the abuser, since fewer older adults reported experiencing abuse in more recent years as an older individual. Additionally, reported rates of physical and sexual abuse reduce across the lifetime for both older women and men, a finding demonstrated across previous studies (Carthy & Holt, 2016). Although prevalence estimates are relatively high, these were calculated based on the percentage of older women and men who reported at least one item from each mistreatment category within the adapted R-ACE.

Overall, older women generally reported experiencing more forms of mistreatment than men, particularly for pre-60 sexual abuse and physical neglect, past year emotional abuse, alongside emotional neglect and isolation and rejection across each time period. Evidence suggests that older women are more likely than men to become victims (e.g. Pillemer, et al., 2016). Older women are likely to have been socialised with more traditional attitudes and values regarding gender roles, marriage, and family (Straka & Montminy, 2006), living in a culture that did not promote civil rights, including women's rights. As such many have lived without the protections offered by legislations regarding child abuse, DVA, sexual assault and workplace discrimination (Teaster, 2017). Although this has gradually improved, older women within this sample are likely to have experienced various forms of mistreatment during their lifetimes, including sexual discrimination, poverty and war, amongst others, which may

contribute towards the higher prevalence estimates reported. These concepts are in line with feminist theories of DVA and elder abuse and may offer some explanation for why women have experienced higher rates of abuse across the lifespan compared to men.

Furthermore, variations in prevalence estimates are likely to be associated with cultural differences with regards to elder abuse, and more importantly conceptual and definitional issues are likely to confound the accuracy of prevalence estimates across different cultures (Williams, et al., 2017). Unfortunately, the lack of a uniformed definition for various forms of elder mistreatment limits the ability to compare and generalise findings across studies from varying cultures (Roberto, 2016).

Single and poly-victimisation rates varied across the lifespan, whereby poly-victimisation was more common than single victimisation at each time period for both older women and older men. This is inconsistent with previous research; Williams, et al. (2017) reported lower rates of past year poly-victimisation than single victimisation across all mistreatment types. However, since the adapted R-ACE covers several categories with numerous mistreatment subtypes being considered (e.g. sexual abuse: forced sexual acts and forced intercourse), older adults are likely to have experienced at least one form during their lifetime. Differences in measurement tools and sampling methods may further contribute towards this variation. Despite inconsistencies across research, the findings demonstrate that older adults experience multiple co-occurring victimisations, and since poly-victimisation is evident across the lifespan, findings further highlight the importance of capturing the lifespan burden of multiple victimisations (Hamby, et al., 2016; Williams, et al., 2017).

Experience of most forms of mistreatment before 60 greatly increases the odds of experiencing the same form of mistreatment since 60 and within the past year for older women. Fewer forms of mistreatment were identified for older men when examining these associations. However, this does

support the notion that individuals may continue to repeatedly experience a single form of mistreatment across time, especially if exposed to it prior to 60 years old. Furthermore, findings revealed that for older women alone, pre-60 poly-victimisation was associated with experiencing any victimisation since 60 and within the past year, a finding that is consistent with previous research on other populations (e.g. Finkelhor, et al., 2005b). Alike their younger counterparts, older victim's previous trauma and mistreatment may affect their current vulnerability (Teaster, 2017). Teaster (2017) suggests that psychological defences developed in younger years to cope with previous victimisation may break down overtime if an individual is exposed to victimisation again. This may be exacerbated by cognitive changes, health difficulties, and lower social support, amongst other factors known to increase vulnerability, particularly those related to older women (chapter three presents risk factors associated with mistreatment). Ultimately, this may explain the association between experiencing multiple forms of mistreatment before 60 and experiencing any victimisation within more recent years. These findings were not replicated within the male sample and may be due to the small sample size. Therefore, additional research and information would be required to establish the association between older males' experience of pre-60 poly-victimisation and victimisation since 60 and within the past year.

Regarding individual demographics, although few significant associations were established between older women and older men's demographic information and mistreatment experiences, findings identified that older women over 70 years were less likely to have experienced past year poly-victimisation. Whilst this is consistent with Williams, et al. (2017) regarding past year poly-victimisation alongside previous research demonstrating that younger age is associated with an increased risk of mistreatment (Laumann, et al., 2008; Acierno, et al., 2010), it is not consistent with other research indicating that advanced age increases the risk (Choi & Mayer, 2000; Yan & Tang, 2004; Jackson & Hafemeister, 2011; Lindert, et al., 2012). Mixed findings may result from varying methodologies, samples, and country of

residence; therefore, findings should be considered with regards to the sample they have been drawn from.

Limitations

There were limitations regarding recruitment and data collection, despite the various methods used to increase accessibility. Although several community organisations were contacted, response was limited. This is likely to have impacted recruitment, evidenced by the limited number of participants completing the paper-based survey, and no participants completing a telephone interview. Whilst online recruitment offered the opportunity to reach a range of older adults through Facebook, Twitter and email, such methods are likely to introduce demographic selection bias by recruiting a more internet-active population and introducing potential bias against those who lack internet or electronic resources.

Additionally, with most participants being recruited via the designated Facebook page predominantly reaching females, it is likely that this contributed towards the higher proportion of female respondents compared to males. Facebook demographic data for UK users demonstrates a higher proportion of female users compared to male users across all age groups, specifically in the age groups 55-64 years and ≥65 years (Johnson, 2020). Therefore, it is possible that this contributed towards the limited number of male respondents. Researchers in other fields of interest have consistently highlighted the difficulties in recruiting and engaging younger and older men into research (e.g. Anderson, et al., 2016; Ryan, et al., 2019), and have further identified the need to increase male engagement. Nevertheless, within the current research this small proportion of male respondents is likely to limit both representativeness and generalisability.

Furthermore, since respondents self-enrolled, they may have a unique interest in elder mistreatment which might have resulted in atypical responses, and therefore may contribute towards the higher prevalence estimates established within this research compared to previous prevalence

research. Meanwhile, estimates of mistreatment and poly-victimisation are based entirely on self-report, without cross-source collaboration and third-party informant information, which may limit the findings reliabilty and validity. This is particularly important since questions about earlier life experiences require retrospective recall, potentially introducing recall bias. The sample predominantly consisted of older adults of white ethnicity, with other ethnicities being underrepresented; therefore, results cannot be generalised to other ethnicities within the UK. Further research is required to address elder mistreatment within other ethnic groups.

Finally, whilst older men have reported experiencing various forms of abuse across time periods, the number of males participating within the research is considerably low compared to females. This small sample size meant that several analyses could not be conducted or resulted in limited information being obtained due to lack of data, ultimately providing limited information about older male's experience of mistreatment. Furthermore, inclusion of males within the overall sample has the potential to skew findings and act as a confounding factor impacting findings regarding female experiences. Therefore, within the following chapter, males are excluded to allow for specific focus upon female experiences of mistreatment.

Implications

The socio-ecological framework encourages an understanding of elder mistreatment from various perspectives. Understanding the prevalence of, and relationship between victimisation and poly-victimisation experienced by older adults over the lifespan has many implications, all of which acknowledge aspects of the socio-ecological framework. Detection and identification of victim (and perpetrator, see chapter five) can contribute towards targeted prevention and intervention, by recognising vulnerable/high-risk individuals. Similarly understanding prevalence of elder mistreatment may inform the formal support systems external to the older adult (e.g. community services/Police) of the severity of elder mistreatment.

Findings can also be used to inform public education campaigns and policy, which may reduce ageist stereotypes and cultural patterns regarding older adults to improve society's understanding of elder mistreatment. Ageism brings negative attitudes regarding older adults which contribute towards cultural and institutional patterns of society. As such, these can act as risk factors for both avoidance and denial behaviours regarding the occurrence of elder mistreatment and perpetration (de Lima, et al., 2018). Findings highlight the prevalence of single and multiple victimisations and demonstrates its severity across the lifespan. With greater recognition of the extent of this problem by the general public via public education, these ageist stereotypes may begin to change, allowing for more pro-social attitudes regarding older adults. Recognising that elder mistreatment is a serious and pervasive societal concern is crucial for all levels of the socio-ecological framework, for detection, prevention, and intervention.

Future Recommendations

Although establishing standardised definitions for elder mistreatment is important, it is equally important to establish a standardised definition of elder poly-victimisation. Many definitions include the co-occurrence of multiple forms of abuse (e.g. Ramsey-Klawsnik & Heisler, 2014), whilst others consider repeatedly experiencing a single form of abuse to constitute poly-victimisation. Furthermore, capturing the lifetime burden of multiple victimisation (e.g. Hamby, et al., 2016) rather than solely that of co-occurring forms of abuse in older age (e.g. since 60) can contribute towards greater understanding of individuals' experiences across the lifespan. Evidently, additional research is required to better define and understand relationships between various forms of abuse experienced before 60 (including childhood, adulthood) and abuse experienced since 60, and to further examine the cumulative impact of poly-victimisation across the lifetime. Finally, increased attention should be paid to recruiting and engaging older men in research to further examine older males' experiences of mistreatment and poly-victimisation across the lifespan.

Summary

The research addressed older women and older men's experiences of mistreatment and poly-victimisation across the lifetime. Prevalence of mistreatment varies according to mistreatment type and time period for both older women and older men. For older women, experience of pre-60 poly-victimisation was associated with experience of any victimisation since 60 and within the past year, however these associations were not established for older men. Despite limitations, particularly the small male sample which limits what can be understood about males alongside generalisability, findings provide a greater understanding of older adults experiences of mistreatment and poly-victimisation, with significant findings regarding older women's experiences of mistreatment across the lifetime. Although further research is needed to understand the cumulative lifetime impact of poly-victimisation in both females and males, the findings from this chapter can contribute towards detection, prevention, and intervention. Subsequently, the following chapter aims to analyse data from the female sample in order to focus upon the perpetrators of mistreatment towards older women alongside addressing older women's help-seeking behaviours.

Chapter Five

Identification of Perpetrators and Response Strategies for Mistreatment in Older Women

Abstract

Background: Previous research has predominantly focused upon elder abuse victims, with limited evidence regarding perpetrators, a finding that was further demonstrated within the systematic review. The socio-ecological framework considers the complex interplay between victim, relationships, formal support networks, and broader societal values. As such, recognition of perpetrators and their relationship to the victim, alongside understanding of help-seeking and responses to experiences of abuse are vital features of this framework.

Purpose: Since the sample predominantly consists of females, the research aims to examine perpetrators of mistreatment towards older women and establish how older women respond to their experiences of mistreatment.

Method: A sub-sample of 222 UK-based older women (from the larger sample of 261 older adults described within chapter four) aged ≥60 years completed the adapted R-ACE, either online or via hard copy. Respondents were asked who perpetrated mistreatment and how they responded or would respond to future mistreatment.

Results: For older women, intimate partners were most commonly identified as perpetrators, including for emotional abuse (39.2%) and physical abuse (37.4%). Experiencing abuse by a single perpetrator was more common compared to multiple perpetrators. Responses varied across abuse subtypes. Older women's responses to past mistreatment by intimate partners varied between abuse subtypes.

Conclusion: Findings provide further information about who perpetrates various forms of mistreatment against older women and contributes towards a greater understanding about how older women have responded or would respond to mistreatment in future; all of which inform detection, prevention and intervention efforts.

KEYWORDS: abuse, neglect, older women, perpetrators, response strategies, interventions, socio-ecological framework, society.

Introduction

Elder abuse literature has predominantly focused upon victims and victim characteristics associated with elder abuse. Similarly, the systematic review in chapter three demonstrates risk factors for abuse victims, whilst chapter four provides evidence of the severity of elder mistreatment and poly-victimisation in older women and older men. Specifically, chapter four, comprising of data from a largely female sample, identified that older women have experienced high rates of single and poly-victimisation throughout their lifetimes. Given the prevalence of elder mistreatment established within the previous chapter and in the literature, alongside the lack of evidence regarding perpetrators, a finding demonstrated within the systematic review, it is imperative that research also addresses perpetrators of mistreatment, whilst examining individual help-seeking and response strategies for abusive experiences. Due to the small number of males within the sample described in chapter four, some statistical analyses could not be conducted effectively and/or provided limited results when examining these, therefore drawing meaningful conclusions regarding male experiences is challenging. Subsequently, perpetrators of abuse and help-seeking and response strategies are addressed using data from the female sample only, particularly since the literature consistently demonstrates that older women experience more abuse than older men.

The socio-ecological framework provides a model to understand the complexities of elder mistreatment and poly-victimisation across multiple levels (Hamby, et al., 2016). Therefore, addressing each level provides greater understanding of the features contributing towards elder abuse, specifically understanding who perpetrates mistreatment as part of the microsystem and mesosystem, alongside consideration of the possible help-seeking and response strategies available to older women who experience mistreatment, which considers each level of the framework.

Perpetrators of Mistreatment and Poly-Victimisation

Within elder abuse literature there is a paucity of research focused specifically upon perpetrators of elder mistreatment and poly-victimisation (Roberto, 2017). Therefore, knowledge about elder abuse perpetrators and their relationship to the victim remains a major gap within the literature (Pillemer, et al., 2016). Exclusion of perpetrators from elder abuse research may overlook their role in maintaining abusive relationships, ultimately contributing towards the continued lack of understanding about who perpetrates elder mistreatment (Jackson, 2016). Previous research is inconsistent in accounting for the perpetrators of abuse against older adults (Wong & Waite, 2017), and since intervention and prevention depends on how well victims and perpetrators can be identified (Rosay & Mulford, 2016), exploration of the range of possible perpetrators is vital.

The victim-perpetrator relationship can range from an intensely close and long-lasting relationship, alike cases where older adults are victimised by intimate partners or adult children, to having no direct relationship other than residing in a residential care service in which the perpetrator lives or works (Roberto, 2017). Therefore, generally definitions propose that elder abuse occurs '*within any relationship where there is an expectation of trust*'. Consequently, the perpetrator is often known and trusted by the older adult (De Donder, et al., 2011); therefore, including intimate partners, family members (children, grandchildren), friends, neighbours, and caregivers. Nevertheless, one area of contention is whether perpetrators must be in a 'trust' relationship with the victim (National Research Council, et al., 2003) or whether a stranger can commit elder abuse, particularly where strangers could be in 'trust' relationships with victims under certain circumstances (Goergen & Beaulieu, 2013). Therefore, stranger-perpetrated abuse should also be considered (Jackson, 2016), despite possible differences to abuse perpetrated by 'trusted' individuals (e.g. frequency, etc.; Hamby, et al., 2016).

Abuse by an intimate partner often involves various and concurrent forms of abuse and violence including physical harm, sexual assault, and psychological humiliation or intimidation (Roberto, 2017), pertaining to poly-victimisation. In UK-based research O'Keeffe, et al. (2007) demonstrated that intimate partners (57%) were the main perpetrators of interpersonal violence (physical, psychological, and sexual abuse combined). Similarly, Acierno, et al. (2010) estimated that about 25% of individuals who perpetrate abuse are intimate partners using data gathered from community-dwelling older adults in the United States. Although the term 'elder abuse' is regularly used for any form of abuse within older adults (McGarry & Simpson, 2011), it is often not distinguished from DVA, whereby controlling, coercive, threatening behaviour, violence or abuse occurs between intimate partners or family members. As is common throughout earlier stages of life, most reported cases of DVA in late life involve women as victims and men as perpetrators (Roberto, 2017). Various terms depict experiences of DVA in older adults; 'DVA grown old' refers to when DVA starts earlier in life and continues into old age; 'late onset DVA' begins in old age, where there may have been a strained relationship or emotional abuse that has worsened as the partners aged, whilst some older adults enter into abusive relationships late in life (National Committee for the Prevention of Elder Abuse [NCPEA], 2017). Since research suggests that a significant proportion of elder abuse occurs between partners in later life, where the predominant dynamic is that of DVA, consideration of the potential links between elder abuse and DVA, particularly with respect to perpetrator, is appropriate (Penhale, 2003).

Furthermore, elder abuse can also be perpetrated by adult children. Roberto (2017) identified various contributory factors in perpetration of elder abuse by adult children, including dependency (e.g. where an adult child, relying upon their older parent for personal, relational or financial reasons, may become abusive when their older parent declines further support, or where an older adult is unable to live independently without the perpetrators assistance which causes frustration, anger, and resentment that can result in abusive behaviours), and physical health and cognitive impairments,

which along with cultural values and expectations can shape perceptions about caregiving and what constitutes abusive behaviour. Non-family members are also known to perpetrate multi-faceted victimisation of older adults, with potential abusers including anyone who has developed a trusted relationship with the older adult victim, such as friends, acquaintances, caregivers, community service providers, accountants/financial advisors alongside abuse perpetrated by residential care staff (Roberto, 2017).

Perpetrator relationship also varies according to mistreatment type (Jackson, 2016) and culture (De Donder, et al., 2011; Pillemer, et al., 2016). For example, in the United States and Europe research indicates that the most common perpetrator of elder emotional and physical abuse is a partner (Amstadter et al., 2010; Burnes, et al., 2015; Gil, et al., 2015), whereas the most common perpetrators of these in Asian countries are children and children-in-law (Chokkanathan & Lee, 2005; Oh, et al., 2006). As identified within the systematic review, marital status is also associated with elder abuse. Whilst findings from chapter four do not indicate significant associations between marital status and victimisation or poly-victimisation since 60 or within the past year for older adults within the sample, some US, Canadian and European studies have identified that being married is associated with overall mistreatment, emotional and physical abuse (Pillemer, et al., 2016). Meanwhile, many international studies demonstrate that being single, separated/divorced, or widowed is associated with higher odds of overall mistreatment and each subtype (Brozowski & Hall, 2004; Garre-Olmo, et al., 2009; Lindert, et al., 2012; Burnes, 2014; Burnes, et al., 2015; Yadav & Paudal, 2016). Despite inconsistency in findings, marital status and associated living arrangements (Naughton, et al., 2010; Peterson, et al., 2014) alter the context in which abuse can occur, and therefore may dictate who perpetrates mistreatment.

Finally, although empirical evidence regarding gender of perpetrators is limited and has been inconsistent, often due to difficulties in examining perpetrator characteristics, research has demonstrated that men are more

frequently the perpetrators of abuse than women. Jackson and Hafemeister (2011) reported that 62% of perpetrators were male, with no significant differences by abuse type. Meanwhile, O'Keeffe, et al. (2007) reported that 80% of interpersonal abuse was perpetrated by men. Studies solely addressing sexual abuse have identified more male perpetrators, whereby males are most commonly offenders of sexual abuse of older family members in communities (Ramsey-Klawsnik, 2004) and older residents in residential care services (Ramsey-Klawsnik, et al., 2008). Findings from chapter four offers some insight into this, whereby higher rates of sexual abuse were reported by women during the lifespan compared to men.

Overall, the existing elder abuse literature indicates that victim-perpetrator relationship varies according to mistreatment type (Jackson & Hafemeister, 2011; Jackson, 2016) and cultural differences, with perpetrators utilising various tactics, often over extended periods of time, when abusing their adult victims (Roberto, 2017). Furthermore, although it is generally accepted that both men and women experience abuse, most elder abuse victims are identified as women, whilst perpetrators are commonly identified as men (Penhale, 2003; O'Keeffe, et al., 2007). Therefore, since the research sample predominantly consisted of females, whereby older women generally reported experiencing more single and poly-victimisation across the lifespan compared to older men, the current research focuses upon perpetrators of older women's experiences of mistreatment.

Help-Seeking, Responses, and Intervention

Another important aspect of elder mistreatment is intervention, help-seeking, and responses, relating to each level of the socio-ecological framework. Responses are likely to be dependent upon victim characteristics, whereby gender and age can present challenges for seeking help (e.g. microsystem); the victim-perpetrator relationship and/or the trusted relationships an older adult has with non-abusers who offer support, advice and protection (e.g. mesosystem); the availability and responses of formal support services/organisations, including health, social and legal

services (Police; e.g. exosystem); and the wider society's attitudes towards older adults more generally (e.g. macrosystem).

Multiple disadvantages grounded in traditional gender roles, economic disparities and access to health and mental health services shape the ageing process of women and make older women more vulnerable to violence and abuse than their male counterparts (Choi, et al., 2017). Ultimately, these factors create barriers for help-seeking behaviours in older women (Allcock, 2018). Nevertheless, attempting to understand victim help-seeking and responses is challenging, particularly since mistreatment events are underreported in older adult populations (Hernandez-Tejada, et al., 2013).

Various models attempt to explain help-seeking behaviour amongst different populations. The Behavioural Model of Health Services Use (BMHSU) explains the use of formal health services including help/care-seeking (Burnes, et al., 2018). The model suggests that service use, for example reporting to the Police/authorities, is predicted by a person's predisposing characteristics (e.g. demographics, sociocultural/status inequalities limiting or enhancing access to services), enabling resources (e.g. personal, interpersonal, social and community resources facilitating or impeding service use) and level of need (e.g. nature and magnitude of the presenting problem). Although focused upon formal services, this model offers explanation for general help-seeking behaviours, and since elder abuse occurs within a wider relationship dynamic, application of each dimension must consider the victim, perpetrator and their relationship to understand help-seeking barriers (Burnes, et al., 2018).

Predisposing characteristics include older women's attitudes and beliefs which may present a barrier to seeking help (Allcock, 2018). Attitudes may include a lack of faith in authorities (Carthy & Taylor, 2018), social expectations around marriage and divorce (Brossoie & Roberto, 2015); preconceptions that as a mature individual they should be able to cope with abuse (Rogers, 2016); a degree of acceptance surrounding abuse and DVA,

alongside the belief that the home is a private domain, and that it is not socially acceptable to discuss matters that occur behind closed doors (Safelives, 2016). Furthermore, reluctance to seek formal help due to a strong sense of self-reliance when managing family situations (Wydall & Zerk, 2017) and feelings of hopelessness (Rogers, 2016) should also be considered.

Enabling resources include financial concerns which present further barriers to reporting abuse and seeking help (Allcock, 2018). Older women may have no formal education, no experience of work outside of the home, nor have any independent economic resources, instead being financially dependent upon husbands or partners, ultimately reflecting the widely accepted socio-cultural norms of previous generations. Furthermore, Rogers (2016) identified that the status and role of the victim and perpetrator in terms of caring, illness and dependency was a barrier for seeking help due to the preconceived perceptions about how the other person would be unable to manage without a caregiver. Older women may feel guilty about leaving her now frail, yet abusive partner who continues to rely on her for care and support (Knight & Hester, 2016).

Furthermore, older adults are more likely to suffer from health problems, cognitive decline, reduced mobility, and other disabilities which can exacerbate their vulnerability to harm (Safelives, 2016). If older women have specific health and care needs that are not effectively catered for by services, this may force them to stay in abusive relationships (Safelives, 2016). Dependency is a recognised risk factor in abuse (Yan & Tang, 2004), and perpetrators who emphasise and reinforce dependency as a way of asserting and maintaining control may lead to older women with specific needs having difficulties recognising their experiences as abuse, limiting their likelihood of seeking help (Allcock, 2018). Physical health problems and subsequent isolation can present barriers to victims being able to access community resources, particularly if they cannot leave their home (Safelives, 2016). Furthermore, where formal service responses aim to

separate victim and perpetrator (e.g. intimate partners/adult child), this may result in limited access to other family members and increase social isolation (Flueckiger, 2004). Therefore, seeking help or reporting abuse may be considered a less desirable option for victims who wish to maintain social networks and proximity to loved ones (Age UK, 2015).

Access to services and resources creates further barriers for help-seeking behaviours in older women, with literature indicating that older women are less likely to report abuse (Carthy & Taylor, 2018) and access formal services and resources than their younger counterparts (Allcock, 2018). Possible reasons for this include the lack of services specifically catering for older women's needs, the limited awareness of formal services and options available to older women; the belief that services are only for younger people (Allcock, 2018). Rogers (2016) further suggests that older women's reluctance to share services with younger women, feelings of not being believed should they report abuse, alongside stigma and embarrassment in contacting services or disclosing abuse act as barriers to help-seeking.

Furthermore, with elder abuse being a newer field of violence research compared to child abuse, there are few evidence-based prevention and intervention strategies to assist victims (Dong, 2015), with response strategies from local authorities being different for elder abuse victims compared to those provided for child abuse victims. In the UK legislation is provided under the Care Act 2014, which outlines the safeguarding of older people from mistreatment, and the response process required (Age UK, 2019; GOV.UK, 2015). Where there is a concern about abuse or neglect in the UK, the local authority has the legal responsibility for carrying out any necessary enquiries, which includes various agencies, such as social work, NHS organisations, GPs, the police, housing services and health and care providers (Age UK, 2019). Where action is required steps should be taken to support the older adult and ensure their future safety, provide treatment and/or therapy and assistance through legal action, alongside any on-going

risk management strategies, and if a crime is suspected, the police must be informed and should investigate (Age UK, 2019).

Similarly, with service providers and policy makers often assuming that DVA stops around age 50, there is a noticeable lack of guidance regarding DVA in older adults, with limited clear referral pathways for older adult DVA victims, and little development in responsive community prevention and intervention (Lazenbatt, et al., 2010). The UK voluntary sector does not routinely offer age-appropriate support and interventions (Knight & Hester, 2016). There is limited evidence to suggest that any countries worldwide are delivering a consistent response to older adults who experience DVA (Knight & Hester, 2016). Seemingly older victims are less likely to seek help due to social expectations, a lack of specialist services, alongside previously mentioned barriers. Instead they are more likely to misuse substances as a coping mechanism (Lazenbatt, et al., 2010).

Evidently, predisposing characteristics, enabling resources and perceived level of need influence older women's help-seeking behaviours. Meanwhile, lack of service provision and the limited development of community responses demonstrates the need for additional research in this area. Gaining a better understanding of how older women responded to previous mistreatment experiences, or how they would consider responding to mistreatment in future may provide additional information regarding appropriate and effective ways to respond and intervene.

Current Research

Chapter four demonstrates that older women have reported experiencing various forms of mistreatment across their lifetime. Although older men also reported mistreatment, the sample size was small, so drawing meaningful conclusions is difficult, and therefore findings should be considered preliminary. Subsequently, the current research addresses the larger sample of older women and aims to extend findings from chapter four. With

limited data available regarding perpetrators, the research addresses the victim-perpetrator relationship, examining perpetrators of abuse towards older women. Furthermore, since evidence suggests that older women are less likely to seek help than their younger counterparts, it is important to understand how older women would consider responding to their own experiences, therefore the research examines how older women have responded or would respond to experiences of mistreatment.

Method

Participants

The sample comprised of a subsample of 222 older women (from the overall sample of 261 older adults described in chapter four) aged between 60-88 years. Chapter four provides full details.

Measures

Elder abuse was measured using the R-ACE (Finkelhor, et al., 2015), which was adapted for use with older adults. Chapter four provides further details regarding the tool.

Perpetrator Items

If the respondent experienced at least one incident within at least one specific category of mistreatment as described within the adapted R-ACE, they were asked to provide perpetrator information. A multiple answer format was provided, whereby participants selected from a list of different perpetrators or multiple perpetrators, including intimate partners (current/former romantic or sexual partners), children, grandchildren, siblings, parents, friends, neighbours, caregivers (paid; cared for at home or in services), or strangers. Participants were offered the opportunity to state 'other' perpetrators within a dialogue box. Neglect, isolation and rejection, and exposure to community violence items did not include questions about perpetrators as these are related to general feelings of being loved and supported and are unlikely to include perpetrators.

Response Strategy Items

All abuse and neglect items included an additional item about responses to abusive situations. Participants who had indicated experiencing at least one form of mistreatment across their lifetime were asked to identify how they had responded. Participants were offered eight options, including '*talked to a relative or friend about your own experience/situation*', '*reported to the Police or relevant authorities*', '*obtained support from self-help groups or programmes*', '*accessed an emergency shelter*', '*obtained information about helplines and support networks*', '*obtained support yourself*', '*did not feel comfortable responding in anyway'* and an option to specify 'other' response strategies. Respondents were asked how they would respond to each type of mistreatment if they were to experience this in the future, with the same eight response strategies being altered to reflect future experiences. Participants selected all that applied. See appendix 12 for response strategy items.

Procedure

The procedure is described within chapter four; a flowchart presents the study process (see Figure 5).

Ethics

Ethical considerations are described within chapter four.

Data Analysis

Analyses were conducted using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were conducted. Frequency distributions established the percentage of older women who identified each perpetrator and established single and multiple perpetrators by abuse types. Exploratory analyses were conducted by means of chi-square analysis to examine relationships between age and perpetrator type. Furthermore, frequency distributions were used to establish the frequency

in which each response option was selected as a response to previous experiences of abuse and possible future experiences of abuse. Further exploratory analyses were conducted to examine the relationship between intimate partners as perpetrators and older women's responses to past experiences.

Results

Perpetrators of Abuse

Perpetrators were identified for emotional, psychological, physical, sexual, and financial abuse. The victim-perpetrator relationship is presented, alongside the percentage of individuals reporting abuse perpetrated by single and multiple perpetrators (Table 12).

Perpetrator Relationship

Intimate partners were commonly identified as perpetrators across all mistreatment subtypes. Other commonly identified perpetrators included children, parents, and strangers. Grandchildren, siblings, neighbours, and caregivers were less commonly identified. Participants identified other perpetrators across mistreatment types, including work colleagues, managers, employees, alongside customers, clients, and patients whilst in employment. Participants identified perpetrators to include relatives through marriage, e.g. daughter-/son-in-law, friends of the extended family, foster/stepchildren. A small proportion of participants preferred not to specify the perpetrator across abuse subtypes (emotional abuse n=6; psychological abuse n=3; physical abuse n=5; sexual abuse n=10; financial abuse n=6, however no participants consistently selected 'prefer not to say' for all subtypes).

More specifically, for emotional abuse intimate partners were identified most commonly (39.2%), along with strangers (36.0%). A total of 13.5% of older women identified other perpetrators as described above, followed by parents (10.8%) and children (9.0%). A small proportion of participants

identified neighbours (6.8%), friends (5.0%), siblings (4.1%), grandchildren (0.5%) and caregivers (0.5%) as perpetrators of emotional abuse. For psychological abuse, intimate partners (44.1%) were identified more frequently, followed by children (9.9%), parents (7.7%) and friends (6.8%). A small proportion of participants identified siblings (1.8%), grandchildren (1.4%) and neighbours (0.5%). No participant identified caregivers or strangers for psychological abuse. Intimate partners (37.4%) were commonly identified for physical abuse, with few participants identifying siblings (4.1%), friends (2.7%), children (2.7%), grandchildren (1.4%), neighbours (0.9%), and caregivers (0.9%). Sexual abuse was perpetrated by intimate partners (22.1%) and strangers (18.5%) at similar rates. Although no participants identified children and grandchildren as perpetrators of sexual abuse, some identified parents (2.7%), neighbours (2.7%), siblings (1.8%) and caregivers (0.5%). Some 4.5% of participants did not specify who perpetrated sexual abuse. Finally, financial abuse was reported to be perpetrated by intimate partners (9.9%), followed by children (9.0%), friends (5.4%), strangers (4.5%), other identified perpetrators (4.5%) and grandchildren (3.2%), with few participants identifying siblings (1.4%), neighbours (0.5%), and parents (0.5%) as perpetrators of financial abuse. No participant identified caregivers for financial abuse.

Single and Multiple Perpetrators

Experiencing abuse by multiple perpetrators was less common compared to experiencing abuse by a single perpetrator. For emotional abuse, 27.5% of participants indicated experiencing abuse from multiple perpetrators, whilst 10.8%, 11.3% and 11.7% of participants reported multiple perpetrators for psychological, physical, and sexual abuse respectively. Only 6.8% of participants reported experiencing financial abuse by multiple perpetrators.

Table 12.

Percentage of perpetrators identified by older women by abuse type, alongside percentage of older women identifying single and multiple perpetrators (n=222).

	Emotional Abuse (n=211)		**Psychological Abuse** (n=144)		**Physical Abuse** (n=157)		**Sexual Abuse** (n=137)		**Financial Abuse** (n=79)	
Victim-Perpetrator Relationship	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Intimate partner*	87	(39.2%)	98	(44.1%)	83	(37.4%)	49	(22.1%)	22	(9.9%)
Children	20	(9.0%)	22	(9.9%)	6	(2.7%)	0	(0.0%)	20	(9.0%)
Grandchildren	1	(0.5%)	3	(1.4%)	3	(1.4%)	0	(0.0%)	7	(3.2%)
Sibling(s)	9	(4.1%)	4	(1.8%)	9	(4.1%)	4	(1.8%)	3	(1.4%)
Parent(s)	24	(10.8%)	17	(7.7%)	29	(13.1%)	6	(2.7%)	1	(0.5%)
Friend(s)	11	(5.0%)	15	(6.8%)	6	(2.7%)	23	(10.4%)	12	(5.4%)
Neighbour(s)	15	(6.8%)	1	(0.5%)	2	(0.9%)	6	(2.7%)	1	(0.5%)
Caregiver**	1	(0.5%)	0	(0.0%)	2	(0.9%)	1	(0.5%)	0	(0.0%)
Stranger(s)	80	(36.0%)	0	(0.0%)	24	(10.8%)	41	(18.5%)	10	(4.5%)
Other Perpetrator***	30	(13.5%)	7	(3.2%)	11	(5.0%)	23	(10.4%)	10	(4.5%)
Prefer not to say	6	(2.7%)	3	(1.4%)	5	(2.3%)	10	(4.5%)	6	(2.7%)
Single Perpetrator	136	(61.3%)	115	(51.8%)	122	(55.0%)	95	(42.8%)	55	(24.8%)
Multiple Perpetrators	61	(27.5%)	24	(10.8%)	25	(11.3%)	26	(11.7%)	15	(6.8%)

Note. Total number of participants reported under each abuse subtype refers to the number of respondents who reported experiencing at least one form of abuse at least once during the lifetime (e.g. across all time periods).
*Intimate partners categorised as current or former romantic or sexual partner.
**Caregivers categorised as paid; cared for at home or in care services.
***Other perpetrators specified by participants.

Further Exploration

Previous research demonstrates associations between perpetrator and age, whereby abuse perpetrated by current spouse or partner occurred more often among women aged 60-69 years (DeDonder, et al., 2011). To examine this association a chi-square analysis was conducted, however overall mistreatment perpetrated by intimate partners was not significantly associated to age [$X^2(1, N=222) = 0.049$, $p=.825$].

Responding to Personal Experiences of Mistreatment

Past and future responses to personal experiences of mistreatment subtypes are presented in Table 13. Responses varied across abuse subtypes, and according to whether participants were reporting how they responded to previous experiences of abuse or how they would consider responding to abuse in future.

Responses to Past Experiences of Mistreatment

Older women's responses to past experiences varied according to mistreatment subtype. For many mistreatment types, talking to a relative or friend about their experience was commonly identified with 102 (45.9%) participants identifying this for emotional abuse; 73 (32.9%) participants for emotional neglect; 71 (32.0%) participants for psychological abuse; 62 (27.9%) for physical abuse and 32 (14.4%) participants for financial abuse. In comparison to other possible ways in which older women had responded to previous experiences of mistreatment, participants commonly identified that they had not felt comfortable responding in any way. This was particularly evident for participants who had experienced sexual abuse, with over one third (31.3%) of participants indicating that they had not felt comfortable responding to any form of sexual abuse in the past. Participants further identified that they had obtained support themselves for various experiences of mistreatment in the past, with 37 (16.7%) older women identifying this response strategy for emotional neglect, 33 (14.9%) for emotional abuse, and 31 (14.0%) for physical abuse. Reporting mistreatment to the Police/authorities was less common, with 31 (14.0%) older women identifying this for emotional abuse, 25 (11.3%) for physical abuse and 21 (9.5%) for financial abuse. Only 12 (5.4%) older women indicated that they had reported their past experiences of sexual abuse to the Police. Across mistreatment types few participants reported obtaining support from self-help groups and programmes or obtaining information about helplines and support networks, with a maximum of 5% of participants identifying these response strategies for various experiences of mistreatment. Accessing an emergency shelter was the least identified response strategy, with only three (1.4%) participants suggesting that they had accessed an emergency shelter following physical abuse.

Participants suggested other response strategies for past mistreatment experiences. For example, for emotional abuse (16.2%), older women reported that they had discussed experiences with their GP, obtained support from colleagues, ignored it, or dealt with it themselves. Similarly,

for psychological abuse (13.1%), older women reported divorce, marriage breakdowns and leaving relationships as a result of psychological abuse. Some older women reported that they ignored comments, dealt with it themselves, or discussed it with the perpetrator. Others indicated that they had visited friends or family members in secret regardless of any comments, accusations or jealousy expressed regarding their time spent with others.

Table 13.

Older women's responses to experiences of mistreatment in the past and responses for possible future experiences (n=222).

	Emotional Abuse (n=211)		Psychological Abuse (n=144)		Physical Abuse (n=157)		Sexual Abuse (n=137)		Financial Abuse (n=79)		Emotional Neglect (n=167)		Physical Neglect (n=72)	
	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)	Total	(%)
Response to past experiences														
Talked to a relative or friend about your own experience/situation	102	(45.9%)	71	(32.0%)	62	(27.9%)	26	(11.7%)	32	(14.4%)	73	(32.9%)	25	(11.3%)
Reported to the Police or relevant authorities yourself	31	(14.0%)	7	(3.2%)	25	(11.3%)	12	(5.4%)	21	(9.5%)	1	(0.5%)	0	(0.0%)
Obtained support from self-help groups or programmes	6	(2.7%)	1	(0.5%)	6	(2.7%)	7	(3.2%)	1	(0.5%)	11	(5.0%)	6	(2.7%)
Accessed an emergency shelter	1	(0.5%)	1	(0.5%)	3	(1.4%)	0	(0.0%)	0	(0.0%)	1	(0.5%)	0	(0.0%)
Obtained information about helplines and support networks	5	(2.3%)	7	(3.2%)	7	(3.2%)	4	(1.8%)	3	(1.4%)	8	(3.6%)	9	(4.1%)
Obtained support yourself	33	(14.9%)	21	(9.5%)	31	(14.0%)	16	(7.2%)	10	(4.5%)	37	(16.7%)	23	(10.4%)
Did not feel comfortable responding in any way	54	(24.3%)	34	(15.3%)	46	(20.7%)	69	(31.1%)	16	(7.2%)	51	(23.0%)	29	(13.1%)
Other response*	36	(16.2%)	29	(13.1%)	19	(8.6%)	23	(10.4%)	14	(6.3%)	12	(5.4%)	5	(2.3%)
Responses considered for future experiences														
Talk to a relative or friend about your own experience/situation	113	(50.9%)	133	(59.9%)	108	(48.6%)	81	(36.5%)	84	(37.8%)	131	(59.0%)	134	(60.4%)
Report to the Police or relevant authorities yourself	96	(43.2%)	36	(16.2%)	128	(57.7%)	163	(73.4%)	176	(79.3%)	9	(4.1%)	15	(6.8%)
Seek support from self-help groups or programmes	14	(6.3%)	24	(10.8%)	29	(13.1%)	33	(14.9%)	8	(3.6%)	29	(13.1%)	46	(20.7%)
Access an emergency shelter	6	(2.7%)	4	(1.8%)	14	(6.3%)	5	(2.3%)	1	(0.5%)	1	(0.5%)	3	(1.4%)
Obtain information about helplines and support networks	27	(12.2%)	40	(18.0%)	42	(18.9%)	45	(20.3%)	26	(11.7%)	29	(13.1%)	57	(25.7%)
Obtain support yourself	56	(25.2%)	68	(30.6%)	72	(32.4%)	63	(28.4%)	46	(20.7%)	63	(28.4%)	111	(50.0%)
Would not feel comfortable responding in any way	11	(5.0%)	9	(4.1%)	5	(2.3%)	9	(4.1%)	4	(1.8%)	35	(15.8%)	14	(6.3%)
Other response*	20	(9.0%)	31	(14.0%)	14	(6.3%)	14	(6.3%)	15	(6.8%)	13	(5.9%)	9	(4.1%)

Note. Total number of participants reported under each abuse subtype refers to the number of respondents who reported experiencing at least one form of abuse at least once during the lifetime (e.g. across all time periods).

*Other responses stated by participants.

For sexual abuse (10.4%), one older woman stated that she was too young to deal with it herself and instead a family member dealt with it. Similarly, another woman identified that she had not told anyone as she was only eight years old. Others stated that they had been too afraid to do anything, had nobody to tell, or stated that they had not discussed it with others due to feelings of shame. One woman stated that she had only realised that this constituted abuse fifty years later. Other responses included dealing with the abuse themselves or running away, divorcing partners, amongst others.

With regards to physical abuse (8.6%), older women commonly identified divorce/separation as a response to past physical abuse. Others suggested that they had confronted perpetrators, fought back, or when occurring within the course of employment had involved management and the Police. One older woman stated that she was still suffering from the trauma she had experienced as a result of past abuse. Although few, some older women stated that it was normal to be physically punished when they were children; that it was all 'part of growing up'.

For financial abuse (6.3%), older women commonly stated that they had confronted the perpetrator and/or dealt with it themselves. Regarding emotional neglect (5.4%) common responses included discussing their feelings and experiences with family members; accessing therapy, psychological support or discussing their experience with their GP; whilst others suggested that they simply accepted the situation or kept it to themselves. Finally, of the five (2.3%) older women who identified other response strategies for physical neglect, most suggested that they had simply accepted it, managed on their own or contacted their GP. Furthermore, across each abuse type, some respondents identified that lack of income or poverty were reasons to stay in abusive relationships. Several older women stated that in the past it had been necessary to stay away from their abusive fathers and leave their abusive husbands; both of whom had perpetrated various forms of abuse during their lifetimes.

Future Responses to Experiences of Mistreatment

Older women were asked to identify how they would respond if they were to experience any mistreatment in future. Similar to the response strategies identified for older women's past experiences of mistreatment, findings demonstrate that older women would talk to a relative or friend about any future experiences of mistreatment, with over half of respondents suggesting this for emotional (50.9%) and psychological (59.9%) abuse and emotional (59.0%) and physical (60.4%) neglect. The most commonly identified response strategy for any future experience of physical (57.7%), sexual (73.4%) and financial (79.3%) abuse was to report to the Police/authorities. Older women also frequently identified that they would obtain support themselves, with half the sample suggesting this for physical neglect. Although respondents generally did not suggest that they would not feel comfortable responding to mistreatment in future, 35 (15.8%) older women indicated this for emotional neglect. Alike past experiences, few older women suggested that they would access an emergency shelter, with a maximum of 14 (6.3%) older women suggesting this for physical abuse and fewer indicating this for other abuse subtypes.

Participants also stated other response options for future experiences. For psychological abuse (14.0%) many older women indicated that they would either avoid, talk to, or confront the perpetrator, or would deal with it themselves. Some older women suggested that they would leave any relationship in which they experienced psychological abuse. Similar responses were suggested for emotional abuse (9.0%). Of those who suggested other responses for future experiences of financial abuse (6.8%), many stated that they would attempt to deal with it themselves by talking to or challenging the perpetrator or attempt to get their property back. For sexual abuse (6.3%), older women commonly indicated that they would defend themselves if they were to experience sexual abuse in future. Some suggested that they would confront the perpetrator, whilst others stated that they would deal with it themselves. Of those who suggested other responses for future experiences of physical abuse (6.3%), several

suggested that they would fight back or retaliate, with others suggesting that they would deal with it themselves. Some suggested that their response would depend on the severity of the incident. For emotional neglect (5.9%), whilst some older women suggested that they would deal with emotional neglect themselves, one suggested they would access an online support group, whilst others indicated that over time they had accepted that feeling unloved or unsupported was inevitable and therefore would not respond to such experiences. Finally, for those who suggested other responses for physical neglect (4.1%), some indicated that they had learned to rely on themselves or family members, close friends and support networks and would therefore approach these individuals in such instances.

Further Exploration

Consistent with prior research (Amstadter et al., 2010; Burnes, et al., 2015; Gil, et al., 2015), the present findings demonstrate that older women consistently identify intimate partners as perpetrators across all mistreatment subtypes. Help-seeking is reported to be impacted by the victim-perpetrator relationship dynamic. Therefore, exploratory analyses were conducted to examine any associations between intimate partners as perpetrators and older women's responses to their past mistreatment experiences. Chi-square analyses were conducted to examine these relationships, with *p* values obtained from Fisher's exact test (two-sided) being denoted by an asterisk (Table 14).

In comparison to other possible responses to abusive experiences, results indicate that older women who experienced emotional abuse by their intimate partner were more likely to report that they did not feel comfortable responding in any way (OR=1.99, 95% CI: 1.07-3.70, *p* =.028). For psychological abuse, older women were more likely to talk to a relative or friend about the situation (OR=2.93, 95% CI: 1.63-5.25, *p* =<.001), report the abuse to the Police/authorities (OR=8.02, 95% CI: 0.95-67.78, *p* =.046*), or report that they did not feel comfortable responding in any way (OR=4.38, 95% CI: 1.93-9.90, *p* =<.001).

Results demonstrate that older women who previously experienced physical abuse by their intimate partner were more likely to talk to a relative or friend about the situation (OR= 2.50, 95% CI: 1.37-4.56, p = .002), obtain support from self-help groups or programmes (OR=8.85, 95% CI: 1.02-77.08, p =.028*), obtain information about helplines and support groups (OR=10.75, 95% CI: 1.27-90.97, p =.012*), and obtain support themselves (OR=3.14, 95% CI: 1.44-6.87, p =.003). Accessing an emergency shelter demonstrated borderline significance, however the odds ratios and 95% CIs are not presented since observed values were zero indicating low prevalence of older women reporting use of an emergency shelter. For sexual abuse perpetrated by intimate partners, older women were more likely to obtain support themselves (OR=9.73, 95% CI: 3.19-29.64, p =.000*) and report that they did not feel comfortable responding in any way (OR=2.73, 95% CI: 1.42-5.26, p =.002). Finally, for financial abuse older women were more likely to talk to a relative or friend (OR=5.33, 95% CI: 2.05-13.84, p =.001*), or report that they did not feel comfortable responding (OR=7.13, 95% CI: 2.30-22.13, p =.002*).

Table 14.

Bivariate analyses demonstrating association between intimate partners as perpetrators and older women's responses to their past experiences of mistreatment (n=222).

		Response Strategies for Abuse Perpetrated by Intimate Partners														
		Talked to a relative or friend about the situation				X^2	Reported the abuse to the Police or relevant authorities				X^2	Obtained support from self-help groups or programmes				X^2
Abuse Subtypes Perpetrated by Intimate Partners	**N**	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*
Emotional Abuse																
No	135	59	(43.7%)	1			20	(14.8%)	1			4	(3.0%)	1		
Yes	87	43	(49.4%)	1.26	(0.73-2.16)	.404	11	(12.6%)	0.83	(0.38-1.84)	.649	2	(2.3%)	0.77	(0.14-4.30)	1.00*
Psychological Abuse																
No	124	27	(21.8%)	1			1	(0.8%)	1			0	(0.0%)	1		
Yes	98	44	(44.9%)	2.93	(1.63-5.25)	<.001	6	(6.1%)	8.02	(0.95-67.78)	.046*	1	(1.0%)	1.01	(0.99-1.03)	.441*
Physical Abuse																
No	139	29	(20.9%)	1			13	(9.4%)	1			1	(0.7%)	1		
Yes	83	33	(39.8%)	2.50	(1.37-4.56)	.002	12	(14.5%)	1.64	(0.71-3.78)	.244	5	(6.0%)	8.85	(1.02-77.08)	.028*
Sexual Abuse																
No	173	17	(9.8%)	1			9	(5.2%)	1			4	(2.3%)	1		
Yes	49	9	(18.4%)	2.07	(0.86-4.98)	.101	3	(6.1%)	1.19	(0.31-4.57)	.730*	3	(6.1%)	2.76	(0.60-12.75)	.182*
Financial Abuse																
No	200	23	(11.5%)	1			17	(8.5%)	1			0	(0.0%)	1		
Yes	22	9	(40.9%)	5.33	(2.05-13.84)	.001*	4	(18.2%)	2.39	(0.73-7.88)	.139*	1	(4.5%)	1.05	(0.96-1.15)	.099*

Note. Unexposed group used as baseline.
*Denotes *p* values obtained via Fisher's exact test.

Table 14. *cont.*

		Response Strategies for Abuse Perpetrated by Intimate Partners														
		Accessed an emergency shelter			X^2		Obtained information about helplines and support networks			X^2		Obtained support yourself			X^2	
Abuse Subtypes Perpetrated by Intimate Partners	**N**	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*	n	(%)	OR	(95% CI)	*p*
Emotional Abuse																
No	135	0	(0.0%)	1			2	(1.5%)	1			19	(14.1%)	1		
Yes	87	1	(1.1%)	-		.392*	3	(3.4%)	2.38	(0.39-14.51)	.383*	14	(16.1%)	1.71	(0.55-2.48)	.680
Psychological Abuse																
No	124	0	(0.0%)	1			2	(1.6%)	1			9	(7.3%)	1		
Yes	98	1	(1.0%)	1.01	(0.99-1.03)	.441*	5	(5.1%)	3.28	(0.62-17.28)	.245*	12	(12.2%)	1.78	(0.72-4.42)	.207
Physical Abuse																
No	139	0	(0.0%)	1			1	(0.7%)	1			12	(8.6%)	1		
Yes	83	3	(3.6%)	-		.051*	6	(7.2%)	10.75	(1.27-90.97)	.012*	19	(22.9%)	3.14	(1.44-6.87)	.003
Sexual Abuse																
No	173	0	(0.0%)	-			3	(1.7%)	1			5	(2.9%)	1		
Yes	49	0	(0.0%)	-		-	1	(2.0%)	1.18	(0.12-11.61)	1.00*	11	(22.4%)	9.73	(3.19-29.64)	.000*
Financial Abuse																
No	200	0	(0.0%)	-			2	(1.0%)	1			8	(4.0%)	1		
Yes	22	0	(0.0%)	-		-	1	(4.5%)	4.71	(0.41-54.21)	.270*	2	(9.1%)	2.40	(0.48-12.06)	.259*

Note. Unexposed group used as baseline.
*Denotes *p* values obtained via Fisher's exact test.

Table 14. *cont.*

	Response Strategies for Abuse Perpetrated by Intimate Partners					
		Did not feel comfortable responding in any way			X^2	
Abuse Subtypes Perpetrated by Intimate Partners	**N**	n	(%)	OR	(95% CI)	*p*
Emotional Abuse						
No	135	26	(19.3%)	1		
Yes	87	28	(32.2%)	1.99	(1.07-3.70)	.028
Psychological Abuse						
No	124	9	(7.3%)	1		
Yes	98	25	(25.5%)	4.38	(1.93-9.90)	<.001
Physical Abuse						
No	139	24	(17.3%)	1		
Yes	83	22	(26.5%)	1.73	(0.90-3.33)	.100
Sexual Abuse						
No	173	45	(26.0%)	1		
Yes	49	24	(49.0%)	2.73	(1.42-5.26)	.002
Financial Abuse						
No	200	10	(5.0%)	1		
Yes	22	6	(27.3%)	7.13	(2.30-22.13)	.002*

Note. Unexposed group used as baseline.
*Denotes *p* values obtained via Fisher's exact test.

Discussion

Since limited data is available regarding perpetrators, the research examined perpetrators of mistreatment against older women, alongside older women's responses to mistreatment, using data obtained from the sample of older women described in chapter four. With intimate partners being commonly identified as perpetrators, the relationship between intimate partners as perpetrators and older women's past responses were also examined. This was considered within the context of the socio-ecological framework.

The results demonstrate that intimate partners most often perpetrate mistreatment. This is in line with previous research conducted in the US and Europe (De Donder, et al., 2011; Burnes, et al., 2015; Gil, et al., 2015) alongside several literature reviews (WHO, 2011; Pillemer, et al., 2016). It further emphasises the links between elder mistreatment and DVA (Penhale, 2003), whereby some older women may have experienced abuse by their partner for many years, referred to as 'DVA grown old'. Abuse may have stemmed multiple generations making the behaviour more ingrained, accepted, and normalised as partners' age (Finfgeld-Connett, 2014). Meanwhile, for others the mistreatment may be a characteristic of a new

relationship started in later life, or may have started as they have aged and/or become frail or cognitively impaired (e.g. 'late onset DVA'; Allcock, 2018; NCPEA, 2017). Although the sample consisted predominantly of women aged 60-69, who may yet experience any cognitive, mental, or physical health problems, it is possible that some mistreatment perpetrated by intimate partners may have started later in life or following a strained long-term relationship. Findings from chapter four demonstrate a decline in the physical and sexual aspects of abuse since 60 and within the past year, while rates of emotional abuse, emotional neglect and isolation and rejection remain elevated. This is in line with previous research, which maintains that in many cases the physical and sexual violations of DVA decrease with age (Carthy & Taylor, 2018). This decline is likely to coincide with the intimate (male) partners aging, with the reduction correlating with an escalation of emotionally/psychologically abusive and non-violent coercive, controlling behaviours (Carthy & Holt, 2016; Carthy & Taylor, 2018).

Other frequently identified perpetrators included children, parents, and strangers. Whilst elder abuse is suggested to occur within relationships where there is an expectation of trust, stranger-perpetrated abuse appears relatively common within this sample, being identified for emotional, sexual, and physical abuse, and to a lesser extent, financial abuse. Since the socio-ecological framework considers individuals external to the victim, inclusion of strangers is important (Jackson, 2011), and contributes towards a greater understanding of elder mistreatment. Furthermore, experiencing mistreatment by multiple perpetrators was less common compared to experiencing mistreatment by a single perpetrator. Elder poly-victimisation can consist of multiple co-occurring types of mistreatment by one or more perpetrators or can occur when an older adult experiences one form of mistreatment by multiple perpetrators (Ramsey-Klawsnik & Heisler, 2014). Taken together, findings from chapter four and the current research indicate that respondents were more likely to experience poly-victimisation in the form of multiple co-occurring types of abuse by a single perpetrator as opposed to multiple perpetrators.

Response strategies varied dependent on whether the older woman was reporting responses to past experiences or indicating how she may consider responding in future. There are many barriers to help-seeking or reporting abuse (Allcock, 2018) and according to the BMHSU model, these are predicted by a person's predisposing characteristics, enabling resources and level of need. Barriers may be internal to the older victim at the microsystem level; individual attitudes and beliefs (Allcock, 2018), feelings of hopelessness, embarrassment (Rogers, 2016), desire to protect and preserve family status (Wydall & Zerk, 2017), and concern for the abuser, or external; lack of specialist services designed to cater for older women's needs (e.g. exosystem), negative societal attitudes towards older populations alongside social expectations around traditional gender roles, family and marriage (e.g. macrosystem; Brossoie & Roberto, 2015; Straka & Montminy, 2006). Factors such as financial vulnerability, victim-caregiver (or caregiver-victim) dependency, and health further impact older women's responses to mistreatment (Allcock, 2018).

Findings generally indicated that older women who had experienced mistreatment previously had talked to a relative or friend or had not felt comfortable responding in any way. For all mistreatment types, very few older women indicated reporting mistreatment to the Police. Some older women indicated that being of a young age when experiencing mistreatment meant they did not discuss this with anyone, others indicated that they felt shame, or had not realised they were being abused until later in life. These findings further demonstrate how internal and external barriers influence older women's responding behaviours which are predicted by individual characteristics, resources, and the perceived level of need. They may also reflect the resource and power imbalance identified within violent relationships according to feminist-informed theories, whereby older women are reluctant to seek services for various social and economic reasons, including lack of financial independence (Roberto, et al., 2013).

An additional potential barrier to help-seeking may relate to the complex dynamic between victim and perpetrator, pertaining to the mesosystem, which may be exacerbated in later life. Exploratory analyses revealed that for all mistreatment types perpetrated by the intimate partner, except for physical abuse, older women were more likely to report that they had not felt comfortable responding. Widely accepted socio-cultural norms and traditions may influence older women's responses to abuse by their intimate partners. Research indicates that older women may depend on their husbands/partners (e.g. financially) therefore restricting the choices they may have had in the past to leave an abusive relationship, report the abuse or seek help (e.g. Wydall & Zerk, 2017), further pertaining to features within the BMHSU model.

Alongside the aforementioned factors, older women may also fear the repercussions for themselves and the perpetrator if they were to respond to or report their experiences. Where services attempt to separate the victim and perpetrator this may impact the older woman's ability to maintain relationships with family, friends and social networks which may have been developed over time. Findings from chapter four indicated that nearly 50% of older women reported experiencing isolation and rejection since turning 60. Age UK (2015) reports that older adults place considerable emphasis on having family and friends nearby. Therefore, if service responses lead to reduction in social networks, older adults may not opt to report abuse, particularly since rebuilding social ties may be more difficult for older adults (Wydall & Zerk, 2017), who face various additional lifestyle and health barriers, e.g. frailty, reduced mobility, cognitive impairments, financial challenges. Findings indicate that older women were considerably less likely to report to the Police/authorities or access emergency shelters when past abuse was perpetrated by intimate partners, further highlighting that older women were/are less likely to access service provisions. Evidently, there are numerous structural, organisational, and individual factors influencing decision-making and help-seeking.

For future experiences, older women consistently indicated that they would talk to a relative or friend. Reporting mistreatment to the Police was also frequently indicated, unlike responses to past experiences. For past and future experiences, few older women identified the use of an emergency shelter, a finding that is consistent with data suggesting that shelters are often underused by older women, who may be unaware of them (Straka & Montminy, 2006). Although shelters are a common intervention strategy for (younger) women affected by DVA (Pillemer, et al., 2016), they are not typically designed to accommodate older women with various mental and physical health needs (Allcock, 2018). Therefore, indicating that age presents challenges for women accessing services (Women's Aid, 2017), ultimately acting as a barrier to help-seeking behaviours.

Limitations

The limitations described within chapter four remain relevant, however additional limitations are present. The subsample used within chapter five consisted predominantly of women within the 60-69 year-old group who may present with different needs and vulnerabilities to those within the ≥70 year-old group, therefore mistreatment experiences, perpetrators and response strategies may differ. The research in this chapter solely investigates older women, therefore the extent to which these results are transferable to men could be explored in future research. This is particularly important since many studies report that perpetrators are more likely to be men than women (e.g. WHO, 2011). As such, variation between genders is likely. Furthermore, respondents were not asked to specify the perpetrator for mistreatment experienced at each time period which is likely to have provided additional variation regarding perpetrators of abuse. Therefore, examining differences between perpetrators of abuse across time periods is not possible. The same is true for response items. This may limit the conclusions which can be drawn from analyses regarding intimate partners and response strategies, since it is difficult to explicitly address the time period in which older women are describing when identifying perpetrators and responses. Although this could be modified in future research, items

regarding perpetrators and response strategies were relatively repetitive and therefore the inclusion of additional questions was not deemed suitable, particularly as this would increase the risk of attrition.

Implications and Future Recommendations

The research contributes to our understanding of elder mistreatment by examining the victim-perpetrator relationship. Although commonly identified, perpetrators are not limited to intimate partners. Different types of mistreatment and perpetrators require different explanations for why abuse occurs, subsequently requiring development of targeted interventions (Jackson & Hafemeister, 2013; Rosay & Mulford, 2016). With findings indicating that older women are less likely to report mistreatment to the Police/authorities, it is vital that alternative methods of support and intervention are developed and accessible to older women. Drawing from the socio-ecological framework, initiatives that support and strengthen an individual's informal and formal relationships (including relationships with family and friends, e.g. mesosystem, alongside community relationships, e.g. exosystem) and wider social networks should be developed (De Donder, et al., 2011; WHO, 2011), particularly since talking to relatives/friends is more commonly identified. Promoting local connectedness and social inclusion may reduce isolation, offering increased detection of individuals and perpetrators who are most at risk. Evidence suggests that older women should be included within the development of initiatives that support and prevent mistreatment, since attitudes and needs are likely to differ to that of younger age groups, policy makers and society. Using this to inform guidance used in public education campaigns may further raise awareness of the complexities of elder mistreatment.

Summary

The research addressed perpetrators of abuse against older women, whilst also addressing older women's responses to mistreatment, using data obtained from a subsample of older women. This was considered within the context of the socio-ecological framework, which encourages an

understanding of elder mistreatment from a multi-level perspective. Despite limitations, the research contributes to our understanding of elder mistreatment by examining the victim-perpetrator relationship, and based on older women's responses, recommends the promotion of initiatives that support and strengthen individuals and services at all levels of the socio-ecological framework.

Chapter Six

Overall Discussion

This thesis aimed to better understand elder mistreatment, initially presenting a critique of tools measuring elder abuse, alongside tools used to address ACEs. The chapter highlights why the ACE framework was used as a basis for the primary research, whereby the R-ACE was adapted to address older adults. Chapter three presents the findings from a systematic review, which aimed to expand on existing knowledge regarding risk factors associated with abuse subtypes, an important aspect of elder mistreatment research. Chapter four aimed to examine the severity of elder mistreatment in UK-based older adults by establishing a prevalence estimate of mistreatment and poly-victimisation across the lifetime, as this is a relatively understudied area. Research consistently highlights that women are more likely to become victims of abuse, with men often being identified as perpetrators. Therefore, the thesis also attempted to identify perpetrators of mistreatment within a subsample of older women. This is a feature that is often disregarded within elder abuse research despite its relevance in understanding the victim-perpetrator relationship. Finally, help-seeking and responses for older women were also examined. The socio-ecological framework provides a model to explain the complex links between the microsystem, mesosystem, exosystem and macrosystem. Various methods were used: psychometric critique (chapter two), systematic review (chapter three), and primary research project (Part I, chapter four and Part II, chapter five).

Summary of Findings

Chapter two described elder abuse measures, providing their psychometric properties and limitations, alongside their lack of suitability for the primary research, including their limited content and assessment methods. No standardised tools exist to measure elder poly-victimisation, therefore, to identify the range of victimisations experienced by older adults, including exposure to violence, financial exploitation alongside experiences of isolation and rejection, a specific tool was required. Subsequently, the ACE

framework was used as a basis for the primary research. Therefore, the review further addresses various ACE measures which assess childhood victimisations, describing their psychometric properties, including reliability and validity. Although limitations are addressed, knowledge about the ACE framework and associated measures allowed for the modification of the R-ACE for use within the primary research within chapter four and five.

The previous chapter demonstrates the importance of utilising reliable and valid tools to measure elder mistreatment and poly-victimisation. Although it is important to identify measurement tools to inform research and practice, it is also vital that risk factors for abuse subtypes are identified to offer a practical understanding regarding the factors that increase an individual's risk of abuse. This information can be used to help tailor specific interventions and response strategies appropriate for individual victims. Chapter three presents a systematic review which identified and synthesised primary research addressing risk factors and individual characteristics associated with elder abuse subtypes. Twenty-nine studies were reviewed, with mental and physical health problems, cognitive impairments and individual demographics varying according to abuse subtypes across studies.

Overall few risk factors were reproducible across studies; only depression and being widowed, divorced, separated or single were replicated across studies for emotional/psychological abuse; advanced age and cognitive impairments were replicated for financial abuse; no risk factors were reproducible for physical or sexual abuse; whilst only poor physical health and cognitive impairments were replicated for neglect. This is likely to be due to the variation in study quality, sampling strategies and methodology, countries in which samples are taken, definitions of risk factors and abuse used, amongst other factors, a limitation which is addressed across several chapters within this thesis. Examining risk factors and individual characteristics associated with abuse subtypes, alike those addressed within chapter four, allowed for further exploration of the microsystem. However, the systematic review also identified the lack of research

addressing perpetrators of elder abuse, including perpetrator risk factors and the victim-perpetrator relationship, both of which are important in understanding the complexities of elder mistreatment. These are addressed in more depth in chapter five.

Identification of risk factors that increase an individual's vulnerability to experiencing different forms of abuse is important in informing the literature. However, another important aspect of elder mistreatment research is examining severity and prevalence. Chapter four presents the first part of the primary research which demonstrates the severity of elder mistreatment and poly-victimisation. Whilst addressing the microsystem, the research examined older adults' experiences of mistreatment over the lifetime: pre-60, since 60 and within the past year. Specifically, it aimed to obtain prevalence estimates of different forms of mistreatment experienced by older women and older men, and to examine poly-victimisation. A convenience sample of 261 UK-based older adults aged ≥60 years completed the adapted R-ACE, after the psychometric critique had demonstrated its suitability for modification. This was completed either online or via hard copy to measure mistreatment across the lifetime.

Prevalence varied according to mistreatment type and time period for both older women and older men. For older women, the experience of most forms of mistreatment before 60 greatly increasing the odds of experiencing the same form of mistreatment since 60 and within the past year. Fewer forms of mistreatment were identified for older men when examining these associations. For both older women and men, single- and poly-victimisation rates varied across the lifespan, whereby poly-victimisation was more common than single-victimisation at each time period. This is inconsistent with previous research (Williams, et al., 2017). However, differences in measurement tools, sampling methods, and prevalence periods may impact findings across studies.

Further findings revealed that pre-60 poly-victimisation was associated with experiencing any victimisation since 60 and within the past year for older

women; this was not replicated for older men, potentially due to the small sample size. This is consistent with previous research on other populations (Finkelhor, et al., 2005b). Individuals experience many psychological, physical, and developmental changes in later life which may affect their vulnerability to experiencing abuse, particularly if an individual is exposed to victimisation again (Teaster, 2017). Elder poly-victimisation can consist of multiple co-occurring types of mistreatment by one or more perpetrators or one form of mistreatment by multiple perpetrators (Ramsey-Klawsnik & Heisler, 2014). Therefore poly-victimisation was further addressed within chapter five when examining victim-perpetrator relationships.

Chapter five presents the second part of the research. Since the male sample was small, few meaningful conclusions could be drawn, therefore the research aims to further examine the subsample of older women. It aimed to examine the victim-perpetrator relationship, a factor that is frequently neglected within the literature, and further demonstrated within the systematic review, ultimately supporting the need for additional research regarding perpetrators. This addressed the microsystem and mesosystem. Research has consistently reported that most elder abuse victims are identified as women, whilst perpetrators are commonly identified as men (Penhale, 2003; O'Keeffe, et al., 2007), therefore, focusing upon females is important. Furthermore, since evidence suggests that older women are less likely to seek help than their younger counterparts, chapter five also aimed to understand help-seeking and response strategies available to older women by examining responses to past and future abusive experiences, addressing multiple levels of the socio-ecological framework.

Using the subsample of older women reported within chapter four, the findings demonstrate that intimate partners were commonly identified as perpetrators. This is consistent with research conducted across the United States and Europe (De Donder, et al., 2011; Burnes, et al., 2015; Gil, et al., 2015) alongside literature reviews (WHO, 2011; Pillemer, et al., 2016), and emphasises the links between elder mistreatment and DVA (Penhale,

2003). Other frequently identified perpetrators included children, parents, and strangers. Experiencing mistreatment by multiple perpetrators was less common compared to experiencing mistreatment by a single perpetrator. Taken together, findings from chapter four and five indicate that respondents were more likely to experience poly-victimisation in the form of multiple co-occurring types of abuse by a single perpetrator rather than multiple perpetrators.

With chapter four identifying the severity of elder mistreatment and poly-victimisation across the lifespan, this supports the need for increased knowledge around help-seeking and response strategies, since these are important in establishing appropriate interventions for victims. Responses varied depending on whether older women were reporting responses to past experiences or reporting how they would respond in future. For all eventualities few identified accessing an emergency shelter, a finding that supports the notion that shelters are underused by older women who may not be aware of them, and further indicating that such services are not tailored to meet older women's needs (e.g. Allcock, 2018; Rogers, 2016). Talking to a relative or friend was commonly identified across all eventualities.

Finally, since intimate partners were most commonly identified as perpetrators, exploratory analyses examined relationships between intimate partners as perpetrators and older women's responses to previous abuse, attempting to further understand this complex victim-perpetrator dynamic. Findings revealed that for all mistreatment types perpetrated by the intimate partner, except for physical abuse, older women were more likely to report that they had not felt comfortable responding. Various potential barriers for help-seeking are presented, including traditional values which may influence older women's responses, practicalities such as dependency on perpetrators who may also be caregivers, and fear of repercussions if they were to report, seek help or respond to abusive experiences.

Limitations

Despite findings offering a greater understanding of elder mistreatment, limitations are present. These are addressed within each chapter; however, some are highlighted below to offer further discussion. There are several limitations identified across each chapter regarding the measurement tool. Since poly-victimisation is a relatively new concept within the elder abuse field, with limited research addressing poly-victimisation in older adult samples, no gold standard measurement tools have been developed to address this phenomenon (Hamby, et al., 2016). Instead tools such as the Conflict Tactic Scale (CTS; Straus, 1979) have been used and/or modified to address elder abuse more generally. Therefore, using the findings from chapter two the R-ACE was modified to address elder mistreatment and poly-victimisation within chapter four.

Although ACE measures have generally demonstrated good reliabilty and validity (as demonstrated within the psychometric critique), with the reliabilty of the adapted tool being presented for the current research, limited attention was paid to the validity of the tool prior to its development, with only a small pilot test being completed. This is recognised to be a limitation and should be considered in future research when attempting to develop tools which address and measure older adults' experiences of mistreatment across their lifetimes. In future, face validity should be established, with experts evaluating items and question construction as part of ongoing validity assessment. Nevertheless, it is also important to consider the impact of good face validity upon participant engagement within violence research, where there is often a level of deception involved initially so that participants do not guess the nature of research early on. For example, within the primary research more neutral terms were used to describe the research purpose in the recruitment advert and participant information sheet, describing 'interpersonal conflict and negative experiences' which most people are more comfortable using or can more easily relate to, rather than the terms 'violence, abuse and neglect'. This aimed to reduce the emotional impact that may bias individual decision-

making and responses. The exact research purpose was revealed at the end of the research within a detailed debrief.

Measurement of ACEs is often unique to the experiences and contexts of the population of interest (CDC, 2020a), therefore they may not encompass the breadth of adversities experienced (Finkelhor, et al., 2015). Despite these measures addressing childhood adversity, the modified R-ACE may not account for all mistreatment experiences in which an older adult has been, or is currently, exposed. The elder abuse definition was carefully considered to ensure inclusion of all relevant abuse subtypes, for example psychological and financial abuse, which are not included within the original R-ACE measure. However, since the research spanned older women and men's lifetimes, in which various victimisation experiences may be relevant, it may not encompass the range of adversities experienced. Furthermore, overall participants provided valid responses both online and within paper-based copies; however, to include all items under each domain the survey contained a degree of repetitiveness. The relatively low completion rates suggest that older adults may have had difficulties with the tool, demonstrating an additional limitation across chapter four and five. Therefore, future research could consider how the tool could be modified to allow for increased accessibility and higher completion rates.

Limitations are also present with regards to recruitment and the representativeness of the sample. Although online recruitment offered the opportunity to reach a wide audience through advertising, social media, and email correspondence, contact with local and national community organisations was limited. This may have impacted recruitment of differing groups of older adults, for example those without internet access and older old age groups. Subsequently, this is likely to impact the findings generalisability. Furthermore, a large proportion of participants self-enrolled online, and therefore may represent a different group of older adults to those contacted through community organisations. Whilst efforts were made to reduce this, with a variety of recruitment methods provided,

it is recognised that future research should attempt to obtain more representative samples.

Additionally, the overall sample predominantly consisted of individuals of white ethnicity, with other ethnicities being underrepresented. Meanwhile chapter five presents findings from the subsample of older women. Therefore, findings cannot be generalised to other ethnicities within the UK, nor can chapter five's findings be generalised to older men. Further research is required to address mistreatment experienced by other ethnic groups which may differ, whilst also attempting to obtain larger samples of older men to conduct in-depth statistical analyses and establish more meaningful findings. The systematic review and empirical research addressed community-dwelling populations alone, therefore findings cannot be generalised to older adults residing in residential care services. Since such individuals may present with different needs, vulnerabilities, and experiences of abuse, alongside access to specialist support compared to the general older adult population; additional research is needed.

Furthermore, the systematic review was impacted by time and resource constraints. Cochrane (2019a) recommend at least two independent reviewers to ensure that errors within study selection, data extraction and quality assessment are detected. An independent reviewer quality assessed 20% of the included studies to make use of available time and resources. Despite the 92% agreement following quality assessment, time constraints limited any further discussion and review. Fortunately, since disagreements occurred due to lack of clarity in items, further review was not deemed essential. Nevertheless, future systematic reviews addressing risk factors associated with abuse subtypes should utilise an independent reviewer throughout the whole process to reduce bias and improve reliability and validity.

Furthermore, although six experts were contacted regarding any unpublished research, only one replied. It is possible that other relevant research exists which has not been included. Time constraints limited the

time allocated for contacting authors throughout the review and further impacted the follow-up time allocated. It was also not possible to address perpetrator characteristics, victim-perpetrator relationships, and the environment which impact mistreatment experiences; therefore, further consideration of multiple levels of the socio-ecological framework is required in future.

Whilst chapter five examines perpetrators of mistreatment towards older women, due to the length of the tool, additional perpetrator questions were not included, therefore failing to examine differences between perpetrators across time periods. This may have offered a different perspective regarding the victim-perpetrator relationship across the lifetime, whereby childhood abuse may be more likely to be perpetrated by family members, whilst abuse during adulthood may be more likely to be perpetrated by intimate partners within the context of DVA. Similarly, respondents were not asked to specify their responses to abusive experiences across time periods. Again, this may limit the findings established within analyses regarding intimate partners and responses, since it is difficult to address the time periods in which women are describing when identifying perpetrators and responses to abuse. Future research should address this.

Theoretical and Practical Implications

Theoretical Implications

The theoretical implications of the thesis are wide-ranging, with findings across each chapter indicating the need for further attention and research into the development of theory to explain elder abuse, alongside development of definitions for elder abuse and elder poly-victimisation.

Firstly, theories are at the centre of research and practice and provide a powerful influence over how information is collected and analysed, guiding description, explanation, prediction, and interpretation of the phenomenon under study (Roberto & Teaster, 2017). A lack of theory in research and practice can lead to limited or incorrect application of research findings which inhibits the development of knowledge regarding an issue (Roberto

& Teaster, 2017). It is widely reported that elder abuse research is characterised by an absence of theory (Jackson, 2018), and where existing theories have been applied to elder abuse (e.g. the child abuse and DVA theories identified within the introduction), these have not been adequately tested or critiqued (Jackson & Hafemeister, 2013).

Although the socio-ecological framework facilitates an understanding of how various systems in which older adults, perpetrators, formal support systems, interventions and policy interact and also facilitates the recognition that poly-victimisation in later life is a complex problem requiring a nuanced understanding (Teaster, 2017), its multiplicity and lack of attention regarding the processes and behaviours within and across each system have been identified as limitations (Roberto & Teaster, 2017). Despite other existing theories offering various explanations for elder abuse, they tend to collate all forms of elder mistreatment together within a single theoretical model, and do not consider the multi-faceted, multidimensional nature of elder abuse. Therefore, to address these limitations, further attention should be paid towards the development of theory to explain elder abuse, with future research recognising that elder mistreatment can take several different forms (as demonstrated within the thesis) and that the nature of abuse varies with the type of maltreatment involved. Meanwhile theories should also include factors pertaining to both the victim and perpetrator involved (Jackson & Hafemeister, 2013), particularly since the literature and findings from the thesis have demonstrated that characteristics of both the victim and perpetrator predict the occurrence of different forms of mistreatment.

Furthermore, theory is critical for development of policy and interventions (Roberto & Teaster, 2017). Informed decision makers utilise theoretically grounded, consistent, and coherent research to guide the policies that will most likely solve the problem, and without such theory there may be no clear avenue for problem resolution (Roberto & Teaster, 2017). Evidently, theory development is not only relevant for the academic community but also has vital implications for victim safety, with interventions to promote

and enhance victim safety being drawn directly from the conceptualisation of the underlying problem (Jackson & Hafemeister, 2013). Therefore, different theories will implicate different interventions (Eisikovits, et al., 2013; Jackson, 2018). For example, if it is understood that the underlying cause of elder abuse is patriarchy, interventions may be more aligned to those seen within the DVA field, through the use of psychoeducation to address perpetrators misperceptions and attitudes, psychological intervention to address unresolved problems within perpetrators, and/or the criminal justice system (CJS) as a form of intervention for perpetrators (Jackson, 2018). However, if it is understood that the underlying cause is caregiver stress, interventions may focus on providing additional support for the older person and their carer, without recognising the need for any CJS interventions. Ultimately, different explanations for elder abuse will lead to differing intervention strategies.

Furthermore, at present, few evidence-based prevention and intervention strategies exist (Dong, 2015; Pillemer, et al., 2016). Through systematic reviews, Baker, et al. (2017) and Ayalon, et al. (2016) highlight the lack of evidence and quality studies identifying elder abuse prevention programmes useful for reducing/preventing elder mistreatment, potentially related to the lack of theoretical evidence guiding research. Subsequently, development of elder abuse theory is crucial for furthering knowledge, research, practice and policy, and is particularly important for identifying and developing evidence-based prevention and intervention programmes to address various aspects of elder mistreatment, including the older adult victim and perpetrator.

Theory can also help when defining a phenomenon. Chapter two highlights the variation in definition and conceptualisation of abuse used in measurement tools, whilst chapter three indicates few reproducible risk factors across studies, which is most likely due to variations in study methodology, namely definitions of elder abuse alongside associated measurement tools. These conceptual and methodological limitations identify the need for further research to contribute towards the

development of a unified definition of elder abuse with accompanying standardised measurement tools; a recommendation maintained across the field (e.g. Dong, 2015; Hirst, et al., 2016; Yon, et al., 2017a) and further identified within the psychometric critique, systematic review and empirical research. With this, further research should be conducted worldwide to establish prevalence of, and risk factors for, abuse using a consistent approach across varying contexts/populations. This should also consider perpetrator and environmental factors, both of which are known to contribute towards older adults' increased vulnerability.

It is equally important to establish a standardised definition of elder poly-victimisation (Williams, et al., 2017). There is substantial variation in definitions; some consider co-occurrence of multiple types of abuse (Ramsey-Klawsnik & Heisler, 2014), whilst others consider repeatedly experiencing a single form of abuse, alongside single and multiple perpetrators. Additionally, some researchers (Hamby, et al., 2016) suggest that when applied to elder mistreatment, the poly-victimisation framework should capture the lifespan burden of multiple victimisations and not solely focus on the burden of multiple, co-occurring forms of abuse in older age (Williams, et al., 2017). Although chapter two describes the suitability of using the adapted R-ACE to address mistreatment and poly-victimisation in older adults, limitations are identified, indicating the need for additional research. Further exploration into the range of victimisations experienced by older adults, including witnessed and indirect victimisations, property crimes and financial exploitation alike those within chapter four, is necessary. A unified definition will allow for the development of a consistent measurement tool to address elder poly-victimisation, which may include continued development and/or adaptation of previously used tools like that of the modified R-ACE, or the development of a tool specifically formulated for older adults.

Adoption of a unified definition will also help professionals identify cases and poly-victims, and develop policies and practices that best meet individual victim's needs, improve victim safety, identify perpetrators and

hold them accountable whilst also addressing underlying conditions and problems perpetrators may have, and offering opportunities for broader prevention and intervention efforts (Heisler, 2017). Additionally, since few publications have specifically addressed poly-victimisation in later life, there is a need for this to become a research focus. There is more to learn about the specific combinations of co-occurring forms of abuse experienced by older adults, the victim-perpetrator relationship, and the differences between poly-victimisation occurring in community settings versus that occurring in institutional settings (Heisler, 2017).

During their lifetime, older adults are likely to have been exposed to countless adverse experiences, such as trauma, war, oppression, and discrimination (Heisler, 2017). More specifically, over time older women may have experienced gender-based violence traditionally regarded as acceptable or within the law, including sexual assault, marital rape, harassment, and discrimination. For context, the marital rape exemption was abolished in England and Wales in 1991 (The Law Commission, 1992), increasing the potential for older women to also be exposed to abuse within marriage. Findings from chapter four and five support this notion, where older women who had experienced childhood victimisation indicated that abuse was considered an accepted part of childhood. Evidently additional consensus and research is needed to define and understand the relationships between childhood, adulthood, and older adult victimisation, and should attempt to consider abuse from a wider perspective. Research should consider the varying cultural and societal norms altering the context in which abuse may be experienced over time. In doing so, research may better capture the lifespan burden of victimisation and its impact upon older adults (Hamby, et al., 2016; Williams, et al., 2017).

Additionally, future research examining elder abuse should consider the way in which gender is addressed. Although data was collected from both males and females within the primary research, there were fewer older male participants. As such, findings are limited and the ability to draw meaningful conclusions from such a small sample is challenging, resulting in chapter

five focusing solely on the female sample. Walby and Towers (2017) identify the importance of mainstreaming gender in the measurement of violence, and describe how researchers often utilise gender-neutral and/or women-only strategies of data collection which fail to provide the quality evidence needed to address the extent and distribution of violence across genders. Whilst chapter four demonstrates this distribution across genders, chapter five utilises a women-only strategy. Therefore, future research should incorporate these features into their measurement of violence in older adult populations to allow for better understanding of the phenomenon.

Furthermore, the thesis has identified that further research is needed regarding the abuse of older adults in institutional settings as this has been given less research attention (Penhale, 2008; 2019). This is despite the long history across the UK of scandals in institutional settings caring for older adults and individuals with a learning disability, which tend to be investigated and treated as separate inquiries into standards of care rather than direct concerns relating to abuse occurring within institutional settings (Penhale, 2008; 2019). The systematic review and primary research focus solely upon community dwelling older adults rather than institutionalised individuals, ultimately impacting representativeness. Reasons for this are described within chapter three. Pillemer, et al. (2016) also highlights the lack of research regarding elder abuse prevalence in institutional settings. Feasibility of conducting research within institutional settings is challenging; resident capacity and institutional barriers create difficulties in accessing this group (Biggs, et al., 2009).

Therefore, additional work is needed to reduce these barriers to allow for further research to improve understanding of this population and increase representativeness. This may include increased collaboration between research communities and services providing care for older adults, recognition of the organisational structure of care services and identification of resources required to obtain maximum participation, tailoring approaches to meet the needs of those within institutional settings, including care home staff and management in the research design and dissemination process,

whilst also offering support and sensitivity to the needs of residents (Davies, et al., 2014). If representativeness is not achieved, prevention and intervention are impacted. Policymakers can only draw on generalisations from community populations (Biggs, et al., 2009), which may not describe the experiences of institutionalised individuals; therefore, hindering progress in identification, prevention, and intervention within this subgroup.

Practical Implications

Practical implications are wide ranging being embedded within the multiple levels of the socio-ecological framework, which provides a conceptualisation of elder mistreatment that is not limited to victims or perpetrators alone. Instead it facilitates the understanding of elder mistreatment across multiple systems, from identification of specific risk factors for abuse subtypes (chapter three, e.g. microsystem), identification of mistreatment and poly-victimisation experienced by older adults (chapter four, e.g. microsystem), identification of the victim-perpetrator relationship (chapter five, e.g. mesosystem), and understanding of response strategies through formal support or community responses (chapter five, e.g. exosystem), to wider societal attitudes, legislation and policy impacting older adults' experiences (e.g. macrosystem). Although addressed in turn, there is considerable overlap between each system highlighting their interconnectedness.

<u>Microsystem</u>

The 'microsystem' identifies the older adult victim, but also considers other individuals involved in their lives, such as perpetrators and extended family members. Effective identification, prevention and intervention relies upon an understanding of the risk factors that increase older adults' vulnerability to experiencing abuse subtypes (chapter three), alongside an understanding of the severity of elder mistreatment (chapter four). Health (e.g. frailty, cognitive decline), financial security (e.g. pensions, scams/fraud), retirement, living arrangements, social isolation, loneliness, bereavement, amongst others (e.g. WHO, 2020; Age UK, n.d) may

significantly impact an older adults' life as they age. Such factors may alter the context in which mistreatment is experienced.

The thesis, specifically the systematic review, and wider elder mistreatment field provides key information about factors creating vulnerabilities in older adults, including health problems, cognitive impairments, and individual demographics. However, additional work is needed to obtain a clearer understanding of these associations, therefore further research should continue to address the various risk factors that increase an older adults' likelihood of experiencing specific abuse subtypes (rather than addressing vulnerability to abuse as a unitary concept), whilst also addressing risk factors for poly-victimisation. Research into the protective factors which mitigate these risks is also essential. Any research examining these factors should consider addressing various populations, drawing attention to marginalised groups, including individuals of different ethnicities, to obtain an in-depth understanding of the various risk and protective factors associated with abuse subtypes. Understanding these risk factors and their association with specific abuse subtypes and poly-victimisation experiences may assist researchers in developing more appropriate screening tools and/or reporting systems which identify at-risk older adults. As such, identification can contribute towards prevention and intervention, whereby attention can be paid to reducing these risks and increasing well-being (Hamby, et al., 2016).

Chapter three informs chapter five, whereby although many identified individual risk factors are static, such as age, ethnicity/race, previous trauma, cognitive impairments, and therefore difficult to change (Hamby, et al., 2016), it may be possible to mitigate these risks by building strengths through social support, increased embeddedness within social networks and development of community resources which older adults can access (Dong, 2015; Pillemer, et al., 2016). By identifying risk factors at the microsystem level, further work can be developed within the exosystem and macrosystem regarding prevention and intervention. Identifying the severity of elder mistreatment and poly-victimisation across the lifespan

alongside risk factors and characteristics which make individuals more likely to experience abuse may contribute towards the development of interventions that target specific victimisations and/or at-risk individuals at different stages of the lifespan (e.g. Teaster, 2017). Therefore, researchers should collate information regarding risk and protective factors to develop interventions that target/address these and to examine their effectiveness within various older adult populations. Longitudinal studies are also needed to examine the incidence of elder abuse subtypes in diverse settings over time. This may also help to understand the potential perpetrators characteristics, relationships, settings, and contexts with respect to older adult victims.

Regarding perpetrators, the systematic review focused solely upon victim risk factors and acknowledged that perpetrator risk factors remains a major gap within the literature. This is despite fields of child abuse and DVA demonstrating the potential to conduct research on perpetrators (Dong, 2015). Preliminary findings indicate that poor mental health, substance misuse, negative attitudes towards victims, and abuser dependency are common amongst perpetrators of elder abuse (Pillemer, et al., 2016; Liu, et al., 2017). Findings from this thesis alongside previous research suggest that with multiple forms of elder mistreatment co-occurring, different sets of risk factors for perpetrators (and victims) emerge (Jackson & Hafemeister, 2011). Therefore, further research into perpetrators and their characteristics is necessary, particularly since it is recognised that increased knowledge of perpetrator risk factors will help explain their role in maintaining abusive relationships, and as such may contribute towards better identification of perpetrators, alongside specific perpetrator prevention and intervention.

Mesosystem

The 'mesosystem' considers the relationships between those identified within the microsystem, specifically the victim-perpetrator relationship, as identified within chapter five. Older women reported abuse from intimate and non-intimate partners. Different forms of mistreatment and respective

perpetrators require different explanations for why abuse occurs, therefore requiring targeted interventions for victims and perpetrators (Jackson & Hafemeister, 2013; Rosay & Mulford, 2016). Additional in-depth research is required to address the relationship between the victim and the perpetrator to better understand this complex dynamic. This is likely to be dependent upon the development of theory regarding elder abuse, which should consider both the victim and perpetrator (as identified within the theoretical implications). With increased understanding of these relationships more work can be done to develop targeted interventions for more effective outcomes. Efforts should be made to implement these at different life stages to specifically target victimisation within childhood, adulthood and older age, with the expectation of mitigating/reducing the recurrence of abuse in later years, particularly since research consistently highlights the links between prior victimisation and later victimisation (e.g. Finkelhor, et al., 2011).

Additionally, recognition and reporting are likely to rely upon those closest to the victim, particularly since findings from chapter five demonstrate that older women may not feel comfortable responding to abusive experiences themselves. If a third party does not intervene it is possible that abusive situations continue (Schiamberg & Gans, 2000). Therefore, it is imperative that individuals maintaining informal (e.g. family, friends) and formal (e.g. professionals, carers) relationships with older adults are aware of, and able to identify elder mistreatment, possible risk (and protective) factors, and understand how best to respond, particularly where there is concern for an older adult. This is reliant upon such individuals developing their own understanding and educating themselves about the seriousness of this problem to increase their awareness. To do this increased public education and awareness campaigns alongside policy formulation are required; these are considered within the exosystem and macrosystem levels.

Exosystem

The 'exosystem' considers environments external to the older adult that indirectly influence their experiences. Addressing the problem of elder

mistreatment and poly-victimisation requires multidimensional and multisystem actions (Alon & Berg-Warman, 2014). Although this should occur across all levels of the framework, it specifically requires attention from the exosystem and macrosystem regarding development of social responses, construction of formal support systems and services, alongside policy formulation and public awareness.

Findings from the thesis not only indicate victim risk factors for abuse subtypes, but also demonstrate the magnitude of the problem within UK-based older adults. For this reason, it is vital that additional efforts are made in identifying and detecting at-risk older adults. This not only includes the development of better systems to identify vulnerable individuals and increase communication between all professionals involved once cases are identified (e.g. the use of online and in-person referral systems, screening assessments, and shared communication), but also training and education of those working directly and indirectly with older adult populations. Any service and/or professional working with older adults in community and institutional care settings requires comprehensive, consistent and ongoing training on the identification and detection of victims of abuse and/or poly-victimisation, on the characteristics of victims and perpetrators, and the impact that mistreatment and poly-victimisation has upon those involved (e.g. Heisler, 2017). It is important that any distinctions between community-dwelling and institutionalised older adults are identified and highlighted during this process.

Research maintains that experience of mistreatment and poly-victimisation has multiple consequences, therefore any responses should be client-centred and trauma-informed with service delivery being aware of the impact that interpersonal violence and victimisation has upon an individual's development (Heisler, 2017), particularly recognising its cumulative lifetime impact (Hamby, et al., 2016). In doing so, attention must be paid to the diverse population of older adults who require professionals to remain culturally aware and sensitive to the varying morals and traditions of older generations, alongside their varying health and practical needs (WHO;

2017b). These may not only differ to younger generations but may also affect how older adults experience and cope with victimisation, potentially impacting their willingness to accept professional help.

To implement client-centred and trauma-informed responses, additional assessment and evaluation of current service delivery is needed, with the view to change and/or overhaul service responses that do not cater to older adults needs effectively. This should be effective across all disciplines who work directly or indirectly with older adults. For example, health and social care professionals and other inter-disciplinary organisations such as the police and criminal justice agencies, and non-governmental organisations should examine how they deliver services and consider who they wish to serve, how services are accessed and delivered (e.g. through GPs, services delivered to clients, community-based services, online or face-to-face), and how services can be delivered to marginalised populations (Heisler, 2017; Penhale, 2019). It is important to recognise that no one organisation, service or professional discipline can expect to competently serve all older adult victims of abuse and/or poly-victimisation. Instead, links should be established between individual disciplines, professional services and referral procedures to ensure that victims are provided the broadest array of services, and if victims do not meet criteria in one system, they should be signposted to appropriate services in others (Heisler, 2017). In future, as systems are developed and/or updated, efforts should be made to obtain information about poly-victimisation, including how many people experience more than one type of abuse; experience of co-occurring types of abuse; characteristics of and relationships between victims and perpetrators, interventions offered, amongst other things (Heisler, 2017).

Evidence within chapter five suggests that individual response strategies vary considerably and may be impacted by internal and external barriers (Allcock, 2018), alongside the complex victim-perpetrator dynamic. External barriers include factors such as lack of services and support designed specifically for older women (and older adults more generally), or simply a lack of awareness of these services. Regarding the victim-

perpetrator relationship and responding, findings indicated that older women who had experienced previous mistreatment by intimate partners were more likely to have reported that they did not feel comfortable responding. Subsequently, this further highlights the need for efforts to be made across professional disciplines to develop evidence-based and appropriate services that meet older adults needs (Heisler, 2017), specifically services and responses that equip, educate and empower older adults to understand their position, to know their rights, and encourage more active response if they experience abuse and/or neglect. Multidisciplinary collaboration offers different perspectives, understanding, knowledge and skill, and can greatly contribute towards this. Specifically, psychologists not only have a role to play in the assessment, delivery and evaluation of services, but also in developing and maintaining collaborative interactions and approaches within multidisciplinary teams involved in the prevention and treatment of victims (and perpetrators) within community and in-patient settings, and in the training of professionals.

Furthermore, chapter four's findings indicate that nearly 50% of older women reported experiencing isolation and rejection since turning 60 whilst chapter five's findings indicate that older women consistently identified that they would seek support from relatives or friends if they experienced abuse in future. For this reason, additional work is needed to develop initiatives that support and strengthen an individual's informal (e.g. mesosystem) and formal (e.g. exosystem) relationships and social networks whether directly through face-to-face interactions or remotely through telephone or online interaction. Promoting local connectedness and social inclusion may reduce isolation and offer opportunities to detect abuse.

In recent years, internet use by older adults has increased substantially (ONS, 2019b), with many age-related charities offering help, support and training for older adults wishing to make use of internet services, including video calls, emails, social media, search engines, amongst others (e.g. Age UK, 2020). As such, this offers additional opportunities to improve social inclusion, and access to services and support from their own homes. Despite

this, additional research is necessary to identify specific needs and preferred responses for older adults like those identified within chapter five. Older adults who have experienced abuse and/or poly-victimisation are the best source of information regarding the nature, impact, prevalence, and dynamics of multifaceted elder abuse and therefore they should be engaged in designing and participating in research (Heisler, 2017). Likewise, older adults should be included within the development of initiatives that aim to support and prevent mistreatment, since their attitudes and needs will differ to that of younger generations, policy makers and the public.

Evidently, practice gained from experience can guide research, whereby research hypotheses can be validated through mixed research methods, which should also endeavour to engage the community in their efforts. Active correspondence between researchers and community members (e.g. service providers, education and training providers, and consumers, including older adults) employs local knowledge in understanding issues of concern, and invests community professionals in the design, delivery and evaluation of interventions, alongside the sharing of research findings (Heisler, 2017). Therefore, future research efforts should promote and sustain the collaboration between community organisations and research institutions and academic communities to better address the needs and concerns of older adults and contribute towards prevention (e.g. Dong, 2015).

Macrosystem

The 'macrosystem' includes the broad ideological values, norms, and cultural patterns of the wider society. Although not explicitly addressed within the research, the implications of the findings acknowledge the importance of the macrosystem in addressing and contributing towards change regarding elder mistreatment.

Government legislation influences aetiology and maintenance of elder mistreatment. There is no specific legislation regarding elder abuse in the UK, therefore, various pieces of legislation are used by professionals,

including social workers, and health and social care staff, when an individual needs protection (Penhale, 2019). The Care Act 2014 was introduced to bring together different areas of social care law regarding adults into one overarching piece of legislation. However, this does not provide legislation regarding specific types of abuse, and instead offers a framework in which adult safeguarding should be addressed within local authorities (Age UK, 2019; Penhale, 2019). Different types of legislation, including the Mental Health Act 1983, 2007; the Mental Capacity Act 2005; the Sexual Offences Act 1957; the Family Law Act 1996; the Domestic Violence, Crime and Victims Act 2004; amongst others, cover varying needs and aim to protect vulnerable adults. However, there is no legislation comparable to the Children Act 1989 that specifically addresses abuse of adults. More recently, it has been suggested that hostility towards elderly people should be included within hate crime legislation (BBC News, 2018), with the inclusion of ageism as a motivation for hate crime being long overdue given its severity.

It is evident that additional attention is needed regarding UK legislation and policy addressing elder abuse directly. A more detailed framework of legislation, guidance, and practice is needed. Such a framework should help identify older adults who are at risk of harm, allow local authorities to take action to protect older adults, and prevent further abuse from occurring. Guidance can be sought from the legislative framework for the child protection system in the UK alongside specific DVA legislation. Recently, the introduction of the Domestic Abuse Bill in the House of Commons in March 2020 has identified its aims to promote awareness of DVA (including a statutory definition of DVA); protect and support victims; transform the justice response (including helping victims to give their best evidence in criminal courts through video evidence, screens or other special measures and to ensure victims do not suffer further trauma in family court proceedings by being cross-examined by their abuser); and to improve performance in response to DVA across local areas and agencies (GOV.UK, 2020). This indicates positive change, but it is vital that any future

legislation, whether regarding DVA or other abuse, specifically considers and provides clear guidance for older adults too.

There is limited evidence regarding conviction rates for abuse against older adults, with reports suggesting that rates are very low. Many issues affect criminal investigations and court outcomes, including evidence to convict a perpetrator, victim vulnerability due to fear, intimidation or confusion about the process, alongside concern about seeing the perpetrator convicted, particularly if this individual is a close family member/carer. Additionally, the impact and trauma associated with criminal justice procedures may be more detrimental than taking steps to ensure they are safe in future (Age UK, 2019). Ultimately these factors may influence victim willingness to report abuse, and as such additional work is required to improve these procedures and their outcomes. Features like those proposed to transform the justice response within the Domestic Abuse Bill outlined above may contribute towards this change.

Furthermore, although ensuring the safety and protection of the victim is paramount, identifying appropriate treatment and intervention for perpetrators is also important. Therefore, additional work is needed to develop specific guidance within legislation to outline the conviction of, and risk management strategies and treatment approaches, for perpetrators of elder abuse, particularly since this thesis and the wider field have identified the complex and dynamic links between the victim, the perpetrator, and abuse subtypes. After all, elder abuse is a social problem often including criminal behaviour, therefore, solutions to prevent and intervene require therapeutic and legal approaches (Alon & Berg-Warman, 2014).

Finally, Hirst, et al. (2016) identify that negative attitudes regarding older adults maintains the problem; stating that ‘as long as older adults are devalued by society, they will remain highly susceptible’ to experiencing abuse. Public education campaigns are vital in educating the public about elder mistreatment. Education is a fundamental preventative strategy, which can draw upon all levels of the system, being targeted at

multidisciplinary practitioners and the public (Hirst, et al., 2016). The public should know how to recognise risk factors for abuse, should be informed of the consequences of victimisation and poly-victimisation for the older adult and society, and should recognise available help and support. Therefore, attention and funding should be targeted towards public education campaigns with the expectation that this will develop public knowledge and encourage willingness for community members to advocate for themselves and others (Heisler, 2017). In turn, this may shape pro-social attitudes towards older adults, alongside recognition of the severity of abuse.

Figure 6 presents a diagrammatic representation of the findings and implications of this thesis within the context of the socio-ecological framework.

Conclusion

The thesis examines elder abuse and poly-victimisation utilising various methods, including a psychometric critique, systematic review, and empirical research presented across two chapters. Initially, it considers and critiques tools previously used to measure elder abuse (e.g. CTS, HSEAST and AMA-SVTAN) and presents a modified tool to address experiences of victimisation in older adults, which utilises items from previously constructed and validated measures (e.g. Finkelhor et al., 2015; O'Keeffe, et al., 2007; Williams, et al., 2017). It also expands on existing knowledge regarding risk factors associated with abuse subtypes, and considers the mental and physical health problems, cognitive impairments, and individual demographics which contribute towards abuse.

The thesis further examines the severity of elder mistreatment and poly-victimisation across the lifetime in UK-based older women and men, whilst also examining perpetrators and help-seeking, response strategies within a subsample of older women. The thesis utilises the socio-ecological framework, which recognises that elder mistreatment affects both individuals and populations, systems, and beliefs, with no level having supremacy over another. Whilst other theories have been developed and

applied to elder abuse, the socio-ecological framework offers the opportunity to understand elder abuse as a complex problem requiring a nuanced understanding of the various systems in which older adults interact alongside the coordinated responses from different levels of intervention and policies. Therefore, it is important that the socio-ecological framework continues to be explored and applied to this field to expand knowledge and understanding about the complexities of elder abuse.

Despite the limitations highlighted, including the lack of standardised tools to measure elder abuse and poly-victimisation, the time and resource constraints identified within the systematic review, the limitations regarding recruitment and representativeness of the sample within the empirical research, amongst others, the thesis offers insight into several important aspects of elder mistreatment and poly-victimisation. These not only identify the magnitude of the problem, but also address poly-victimisation across the lifespan, risk factors associated with elder abuse subtypes, perpetrators of abuse alongside response strategies. However, there is still limited information known about this topic, with inconsistencies in definitions and standardised measurement tools for elder mistreatment and poly-victimisation, alongside inconsistencies in overall reporting of abuse and recognition of perpetrators, all of which hinder progress in research, practice and wider policy development. The theoretical and practical implications offer suggestions for further research and identify some important considerations for future. Subsequently, further research is necessary to offer more robust evidence and provide a more informative understanding of elder mistreatment to improve identification, prevention, and intervention.

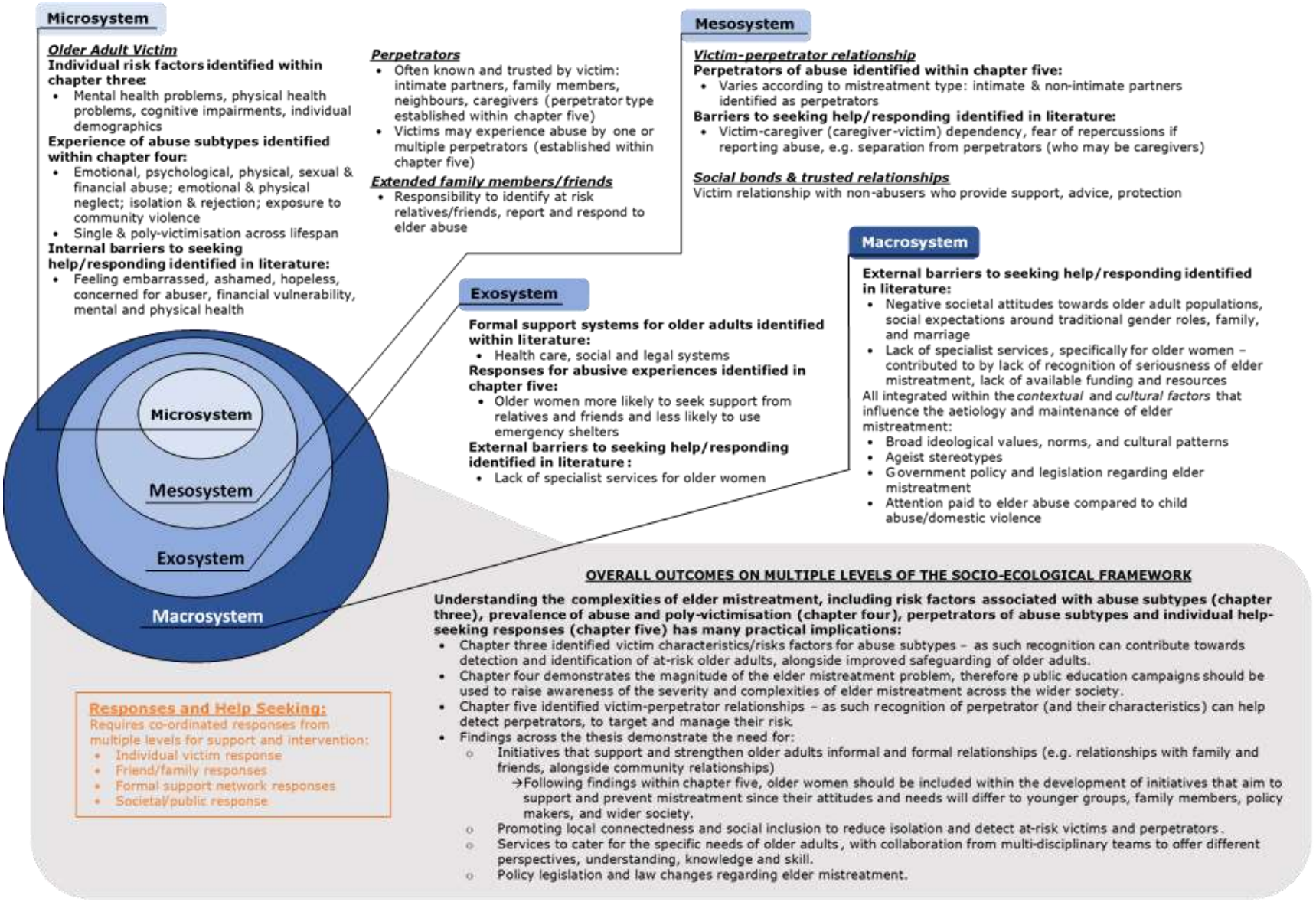


Figure 6. Diagrammatic representation of thesis findings using the socio-ecological framework

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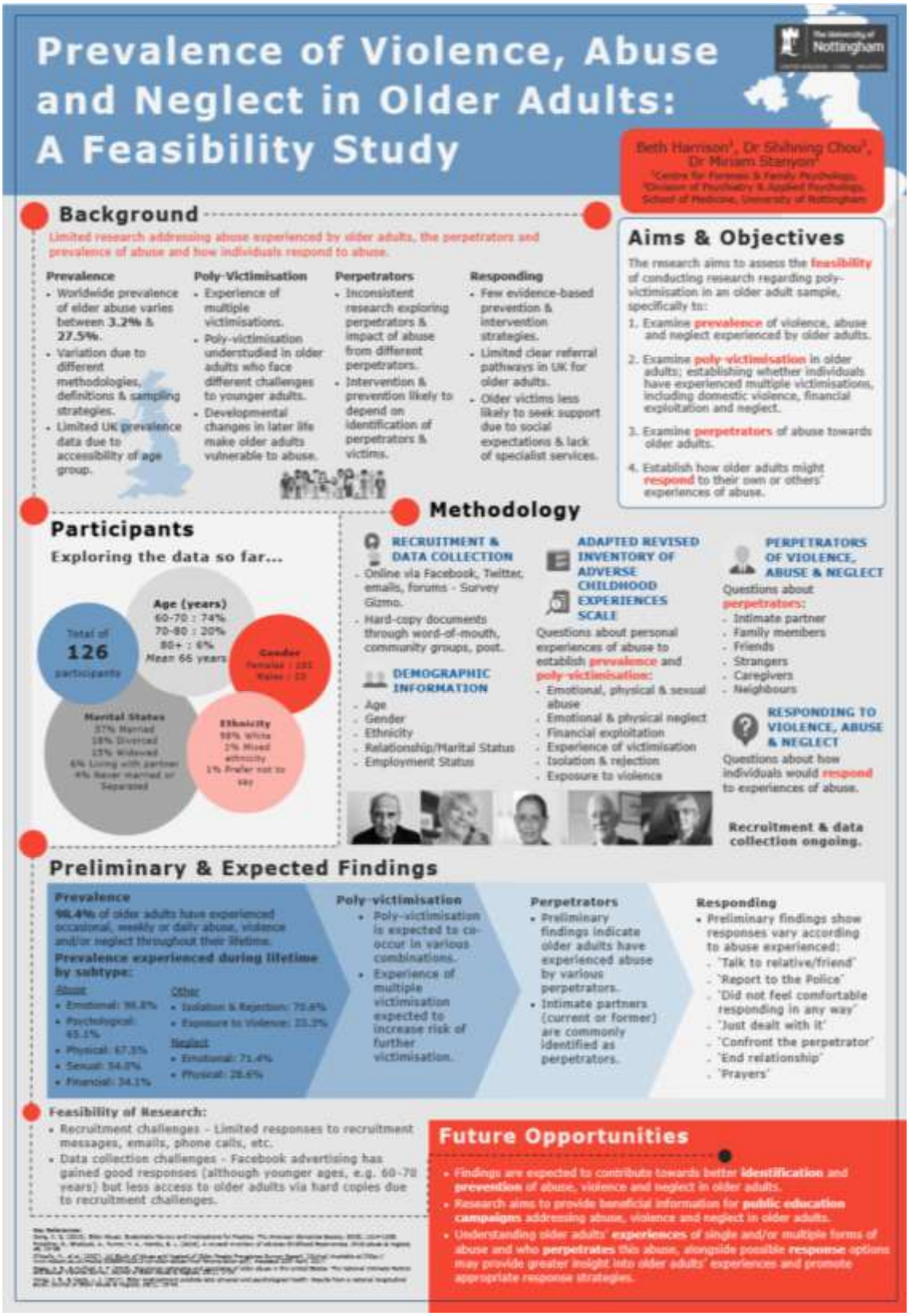
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Appendices

Appendix 1. Poster Presentation presented at British Psychological Society (BPS) Annual Conference held at the University of Nottingham



Appendix 2. Online participant information sheet (provided for all those who complete the research online)

University of Nottingham, School of Medicine
Division of Psychiatry and Applied Psychology



Online Participant Information Sheet

Interpersonal Conflicts and Negative Experiences in Older Adults

Name of Researcher: Beth Harrison
Name of Research Supervisors: Dr Shihning Chou & Dr Miriam Stanyon

You have been invited to take part in a research study. Before you decide whether to take part it is important for you to understand why the research is being done and what it will involve for you. Please take time to read the following information carefully and discuss it with others if you wish to. If you decide to take part, you may print and keep this information sheet.

What does the study involve?
The research includes a number of questions about yourself and questions about your experience of interpersonal conflict and negative experiences throughout your lifetime. The research also includes questions about how you responded or would respond to your own negative experiences and how you would respond to others' negative experiences. The research can be accessed online which can be done at your own convenience and at home.

Why have you been chosen?
The research aims to examine the experiences of older adults within the UK. In this research older adults will refer to adults over the age of 60 years. You have been invited to take part because you are above the age of 60 and are a member of the general public. A range of people over the age of 60 will be invited to take part.

Do you have to take part?
It is up to you to decide whether or not to take part; it is entirely voluntary. There will be no negative consequences if you do not take part in the research. You will be able to provide consent by ticking the consent box. If you decide to take part you are still free to withdraw at any time throughout the study and without giving a reason. It is unlikely that there will be any direct personal benefit to you if you do take part, however you will be providing valuable information which helps increase our understanding of the needs of people aged 60 or above.

What do I have to do?
If you wish to take part, you will be asked to provide your consent by ticking the consent box. You will then be provided with a survey which will take around 15-20 minutes to complete. We will present various statements about experience of interpersonal conflict and negative experiences that you will be required to respond to. You will also be asked about how you responded or would respond if you have these experiences or if you know of a person who has had these experiences. Your participation will remain confidential. Your answers will be kept anonymous. Please be as honest as possible in your answers to help the researcher understand your views.

If you share a computer or device and do not wish for others to see you have done our survey in the browser history, you can do it in 'private mode' by following the instructions for different browsers in the next page.

What are the possible disadvantages and risks of taking part?
It is unlikely that you will encounter any disadvantages or risks by taking part. There may be some questions or statements that you find upsetting or uncomfortable due to the nature of the research. However, a list of relevant organisations will be referenced at the end of the study in case you would like any further support or help.

What will happen to the results of the research study?
Following completion of the research, the data you provide will be analysed. Please note that, subject to legislation including the Data Protection Act 1998, information obtained within the research will remain anonymous. Due to this anonymity, the data will not be able to be traced back to you. Data will be stored on the researchers' password protected devices and will be kept on secure university databases. Following completion of the research the data will be kept in line with the University of Nottingham Code of Research and Ethics. Data will be kept for seven years after the results of this study have been published.

The research is being conducted as part of a Doctorate in Forensic Psychology. The anonymous and aggregated data will be analysed and used to produce a doctorate thesis, which is also a publicly available document and may be used in journal articles, presentations and/or conference papers. If you would like to know the results of the research, you may request a summary of the research once the thesis has been completed.

Who is organising and funding the research?
This research is being completed as part of a post-graduate research project with The University of Nottingham.

Who has reviewed the study?
This study has been reviewed and approved by The University of Nottingham's Faculty of Medicine and Health Sciences Ethics Committee.

Who should I contact if I need further information?
If you have any questions regarding the research please email the researcher:
Beth Harrison Email: bethany.harrison@nottingham.ac.uk

You may also contact the research supervisor(s):
Dr Shihning Chou Email: shihning.chou@nottingham.ac.uk
Dr Miriam Stanyon Email: miriam.stanyon@nottingham.ac.uk

What if something goes wrong? / Who can I complain to?
In case you have a complaint regarding anything related to the study, you can initially email the researcher (Beth Harrison) or the research supervisors (Dr Shihning Chou or Dr Miriam Stanyon). Contact details are provided at the end of this information sheet.

If this achieves no satisfactory outcome, you should then contact the Administrator of the University of Nottingham's Division of Psychiatry & Applied Psychology's Research Ethics Sub-Committee, who will pass the query onto the appropriate person:

Administrator

Faculty of Medicine and Health Sciences Ethics Committee
Medical School, Queen's Medical Centre
Nottingham, NG7 2UH
Email: fmhs-researchethics@nottingham.ac.uk
Tel: (0)115 8232561

Thank you in advance for your time.

How to Access Private Mode in your Browser

Accessing Private Mode in Internet Explorer

1. Click the gear icon in the upper-right corner
2. Click Safety
3. Click 'InPrivate Browsing', or simply press Ctrl+Shift+P on your keyboard

Internet Explorer will indicate it is in 'InPrivate' mode from the blue box next to the location bar, which also bears the label 'InPrivate'.

Accessing Private Mode in Google Chrome - Windows and Mac
Windows

1. Select the special menu in the top right corner of the browser – there will be three lines
2. Select 'New Incognito Window' or simply press Ctrl+Shift+N on your keyboard

Google Chrome will indicate it is in 'Incognito' mode with a man-in-a-hat icon in the upper left-hand corner. On some systems running the newest version of Chrome, the window will also be dark grey.

Mac

1. Select the special menu in the top right corner of the browser – there will be three dots
2. Select 'New Incognito Window' (You can also access this option from the File menu on a Mac) or simply press Command+Shift+N on your keyboard

Google Chrome will indicate it is in 'Incognito' mode with a man-in-a-hat icon in the upper upper-right corner. On some systems running the newest version of Chrome, the window will also be dark grey. To exit simply close the window.

Accessing Private Mode in Firefox
Windows

1. Select the menu in the top right corner
2. Select 'New Private Window' or simply press Control+Shift+N on the keyboard

Mac

1. Select the file menu in the top right corner
2. Select 'New Private Window' or simply press Command+Shift+N on the keyboard

Firefox will indicate it is in private mode, as the top of the window will appear in purple with an icon in the upper-right corner. To exit simply close the window.

Accessing Private Mode in Microsoft Edge

1. Select menu from the upper-right corner

2. Select ‘New InPrivate window’ or simply press Ctrol+Shift+P on your keyboard

Microsoft Edge will indicate it is in ‘InPrivate’ mode as the entire browser window will be grey and each tab will say ‘InPrivate’. To exit close the tab or window and return to regular browsing mode.

Accessing Private Mode in Safari – Mac and iOS
Mac

1. Select the file menu
2. Select ‘New Private Window’ or simply press Shift+Command+N on your keyboard

Safari will indicate it is in private mode as the location bar will be greyed out and a band along the top of the new tab window will indicate that you are in private browsing mode. To exit simply close the window.

iOS (if using Safari on iPhone or iPad)

1. Select the new tab icon in the corner of the new tab screen
2. Select ‘Private’ in the corner

Safari in iPhone or iPad will indicate it is in private mode as the browser screen will turn grey and will state that you are in private mode. To exit simply tap the ‘done’ button in the corner of the screen.

Appendix 3. Paper-based participant information sheet (provided for all those who complete the research using hard-copy documents)

University of Nottingham, School of Medicine
Division of Psychiatry and Applied Psychology



Paper-based Participant Information Sheet

Interpersonal Conflicts and Negative Experiences in Older Adults

Name of Researcher: Beth Harrison
Name of Research Supervisors: Dr Shihning Chou & Dr Miriam Stanyon

You have been invited to take part in a research study. Before you decide whether to take part it is important for you to understand why the research is being done and what it will involve for you. Please take time to read the following information carefully and discuss it with others if you wish to. If you decide to take part, you may keep this information sheet from the research pack.

What does the study involve?

The research includes a number of questions about yourself and questions about your experience of interpersonal conflict and negative experiences throughout your lifetime. The research also includes questions about how you responded or would respond to your own negative experiences and how you would respond to others' negative experiences. The research can be accessed via hard copy documents provided within the research pack. Alternatively, the research can also be accessed online which can be done at your own convenience and at home. If you wish to complete the research online, please use the following link: ***Webpage link for online study***

Why have you been chosen?
The research aims to examine the experiences of older adults within the UK. In this research older adults will refer to adults over the age of 60 years. You have been invited to take part because you are above the age of 60 and are a member of the general public. A range of people over the age of 60 will be invited to take part.

Do you have to take part?
It is up to you to decide whether or not to take part; it is entirely voluntary. There will be no negative consequences if you do not take part in the research. You will be able to provide consent by ticking the consent box and providing a signature. If you decide to take part you are still free to withdraw at any time throughout the study and without giving a reason. It is unlikely that there will be any direct personal benefit to you if you do take part, however you will be providing valuable information which helps increase our understanding of the needs of people aged 60 or above.

What do I have to do?
If you wish to take part, you will be asked to provide your consent by ticking the consent box and providing a signature. You will then be provided with a survey which will take you around 15-20 minutes to complete. We will present various statements about experiences of interpersonal conflict and negative experiences that you will be required to respond to. You will also be asked about how you

responded or would respond if you have these experiences or if you know of a person who has had these experiences. Your participation will remain confidential. Your answers will be kept anonymous. Please be as honest as possible in your answers to help the researcher understand your views.

What are the possible disadvantages and risks of taking part?
It is unlikely that you will encounter any disadvantages or risks by taking part in this research. There may be some questions or statements that you find upsetting or uncomfortable due to the nature of the research. However, a list of relevant organisations will be referenced at the end of the study in case you would like any further support or help.

What will happen to the results of the research study?
Following completion of the research, the data you provide will be analysed. Please note that, subject to legislation including the Data Protection Act 1998, information obtained within the research will remain anonymous. Due to this anonymity the data will not be able to be traced back to you. Data will be stored on the researcher's password protected devices and will be kept on university databases. Following completion of the research the data will be kept in line with the University of Nottingham Code of Research and Ethics. Data will be kept for seven years after the results of this study have been published.

The research is being conducted as part of a Doctorate in Forensic Psychology. The anonymous and aggregated data will be analysed and used to produce a doctorate thesis, which is also a publicly available document and may be used in journal articles, presentations and/or conference papers. If you would like to know the results of the research, you may request a summary of the research once the thesis has been completed.

Who is organising and funding the research?
This research is being completed as part of a post-graduate research project with The University of Nottingham.

Who has reviewed the study?
This study has been reviewed and approved by The University of Nottingham's Faculty of Medicine and Health Sciences Ethics Committee.

Who should I contact if I need further information?
If you have any questions regarding the research, please email the researcher:
Beth Harrison Email: bethany.harrison@nottingham.ac.uk

You may also contact the research supervisor(s):
Dr Shihning Chou Email: shihning.chou@nottingham.ac.uk
Dr Miriam Stanyon Email: miriam.stanyon@nottingham.ac.uk

What if something goes wrong? / Who can I complain to?
In case you have a complaint regarding anything related to the study, you can initially email the researcher (Beth Harrison) or the research supervisors (Dr Shihning Chou or Dr Miriam Stanyon). Contact details are provided at the end of this information sheet.

If this achieves no satisfactory outcome, you should then contact the Administrator of the University of Nottingham's Division of Psychiatry & Applied Psychology's Research Ethics Sub-Committee, who will pass the query onto the appropriate person:

Administrator
Faculty of Medicine and Health Sciences Ethics Committee
Medical School, Queen's Medical Centre
Nottingham, NG7 2UH

Email: fmhs-researchethics@nottingham.ac.uk

Tel: (0)115 8232561

Thank you in advance for your time.

Appendix 4. Online participant consent forms (provided for all those who complete the research online)

University of Nottingham, School of Medicine
Division of Psychiatry and Applied Psychology

Online Participant Consent Form

Interpersonal Conflicts and Negative Experiences in Older Adults

Name of Researcher:
Beth Harrison Email: bethany.harrison@nottingham.ac.uk

Name of Research Supervisor(s):
Dr Shihning Chou Email: shihning.chou@nottingham.ac.uk
Dr Miriam Stanyon Email: miriam.stanyon@nottingham.ac.uk

Please read the following consent form and tick the consent box below once you have read the previous information sheet and understand the aim of the research.

- I voluntarily agree to take part in this study.
- I confirm that I have been provided with an information sheet explaining the research, which I have read and understood.
- I have been provided with the researcher's contact details where I can ask questions and discuss the research further if I wish to.
- I authorise the researchers to disclose the results of my participation in the study and this is anonymous.
- I understand that information about me recorded during the study will be kept in a secure database and remains confidential and anonymous. If data is transferred to others it will be kept anonymous. Anonymous data may be used in academic research reports or publications. Anonymous data will be kept for seven years after the results of this study have been published.
- I understand that I can ask for further instructions or explanations at any time.
- I understand that I am free to withdraw from the study at any time, without having to give a reason for withdrawing however once I have completed the study it will not be possible to remove my data, as it is anonymous.
- Data will not be identifiable, and all data will be completed online.

By ticking the consent box and continuing you are agreeing to complete the following study. No signature is required. ☐

Appendix 5. Paper-based participant consent forms (provided for all those who complete the research using hard-copy documents)

University of Nottingham, School of Medicine
Division of Psychiatry and Applied Psychology

Paper-Based Participant Consent Form

Interpersonal Conflicts and Negative Experiences in Older Adults

Name of Researcher:
Beth Harrison Email: bethany.harrison@nottingham.ac.uk

Name of Research Supervisor(s):
Dr Shihning Chou Email: shihning.chou@nottingham.ac.uk
Dr Miriam Stanyon Email: miriam.stanyon@nottingham.ac.uk

Please read the following consent form and tick the consent box below once you have read the previous information sheet and understand the aim of the research.

- I voluntarily agree to take part in this study.
- I confirm that I have been provided with an information sheet explaining the research, which I have read and understood.
- I have been provided with the researcher's contact details where I can ask questions and discuss the research further if I wish to.
- I authorise the researchers to disclose the results of my participation in the study and this is anonymous.
- I understand that information about me recorded during the study will be kept in a secure database and remains confidential and anonymous. If data is transferred to others it will be kept anonymous. Anonymous data may be used in academic research reports or publications. Anonymous data will be kept for seven years after the results of this study have been published.
- I understand that I can ask for further instructions or explanations at any time.
- I understand that I am free to withdraw from the study at any time, without having to give a reason for withdrawing however once I have completed the study it will not be possible to remove my data, as it is anonymous.
- Data will not be identifiable, and all data will be completed via hard copy documents.

By ticking the consent box below, you are agreeing to complete the following research. Please also provide a signature on the dotted line to indicate your consent to the research.

☐ ***I have read and understood the information sheet and consent to taking part in the research.***

Signature .....

Appendix 6. Participant debrief sheet (provided to all participants)

University of Nottingham, School of Medicine
Division of Psychiatry and Applied Psychology



Participant Debrief Sheet

Interpersonal Conflicts and Negative Experiences in Older Adults

Name of Investigator: Beth Harrison
Name of Research Supervisor: Dr Shihning Chou & Dr Miriam Stanyon

Thank you for completing this research.

You can be reassured that your participation remains confidential; your answers are anonymous and used only for research purposes.

The research you have participated in aims to establish your personal experiences of violence, abuse and neglect in order to estimate a rate at which older adults in the UK experience these forms of abuse. It aims to highlight who the perpetrator may be, whether an intimate partner, family member, friend, neighbour, caregiver or stranger. Furthermore, it aims to highlight whether experience of abuse throughout the lifetime has an effect upon experiences of abuse in later life. Finally, it aimed to establish how you responded or would respond to these experiences of violence, abuse or neglect.

In order to investigate this, the study included questions about any personal experiences of violence, abuse and neglect throughout your lifetime and who did these things to you. It further asked questions about the possible ways of responding to your own and/or others experiences.

These data will be used to examine older adults' personal experiences of violence, abuse and neglect over the lifetime, along with the ways in which they would respond to their own and others experiences of abuse in older age. Such information will enable us to identify what people need and better help those in need of community or professional support.

If you would like any further information or have any questions or queries do not hesitate to email me or my supervisor(s) who would be happy to answer these for you. If you have been affected by any of the information within the study, there are numerous helplines available, including The Samaritans, Refuge and Age UK (details can be found below).

You can request a summary of the study after September 2018.

You have now completed the research.

Thank You

Name of Researcher:
Beth Harrison Email: bethany.harrison@nottingham.ac.uk

Name of Research Supervisor(s):

Dr Shihning Chou Email: shihning.chou@nottingham.ac.uk
Dr Miriam Stanyon Email: miriam.stanyon@nottingham.ac.uk

HELPLINES

The Samaritans
www.samaritans.org
08457 90 90 90
24 hour helpline

Women's Aid
www.womensaid.org.uk
0808 2000 247
24 hour helpline

Age UK Advice
www.ageuk.org.uk
0800 678 1174

Refuge
www.refuge.org.uk
0808 2000 247

Relate
www.relate.org.uk
0300 003 2340

Action on Elder Abuse
www.elderabuse.org.uk
080 8808 8141

Appendix 7. Ethics approval letter dated 27th September 2017

University of Nottingham
UK | CHINA | MALAYSIA

Email: FMHS-ResearchEthics@nottingham.ac.uk

Faculty of Medicine & Health Sciences
Research Ethics Committee
c/o Faculty PVC Office
School of Medicine Education Centre
B Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH

27 September 2017

Bethany Harrison
Doctorate in Forensic Psychology Student
c/o Dr Shihning Chou
Assistant Professor of Forensic Psychology
Centre for Forensic & Family Psychology
Division of Psychiatry & Applied Psychology
School of Medicine
B Floor, Yang Fujia Building
Jubilee Campus
University of Nottingham

Dear Ms Harrison

Ethics Reference No: 129-1706– **please always quote**	
Study Title: Prevalence of Violence, Abuse and Neglect in Older Adults: A Feasibility Study Participant Title: Interpersonal Conflicts and Negative Experiences in Older Adults	
Short Title: Interpersonal Conflicts and Negative Experiences in Older Adults	
Chief Investigator/Supervisor: Dr Shihning Chou, Assistant Professor of Forensic Psychology, Centre for Forensic & Family Psychology, Division of Psychiatry & Applied Psychology.	
Lead Investigators/student: Bethany Harrison, Doctorate in Forensic Psychology Student.	
Other Key Investigators: Dr Miriam Stanyon, Research Fellow, AQUEDUCT Research Programme, Institute of Mental Health, Division of Psychiatry and Applied Psychology.	
Type of Study: PG Student project, qualitative/quantitative.	
Proposed Start Date: 01/06/2017	**Proposed End Date:** 01/09/2018 15mths
No of Subjects: 1-100+	**Age:** 60+years
School: Medicine	

Thank you for submitting the above application which has been considered by the Committee at its meeting on 23 June 2017 and the following documents were received:

- DPAP REC Application form and supporting documents version 1.0: 10.06.2017

These have been reviewed and are satisfactory and the study has been given a favourable opinion.

A favourable opinion is given on the understanding that the conditions set out below are followed:

1. You should follow the protocol agreed and inform the Committee of any changes using a notification of amendment form (please request a form).
2. You must notify the Chair of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (please request a form).

Yours sincerely



Professor Ravi Mahajan
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

Appendix 8. Systematic Review Inclusion/Exclusion Criteria (defined by PECO).

Inclusion Criteria	**Eligibility criteria met?**				**Comment**
	Yes	Unclear	Discuss	No	
Study design: Is the study a… a. Cohort b. Cross-sectional c. Case Control	☐	☐	☐	☐	
Population: Does the population consist of community-dwelling (non-institutional) male and female older adults, aged over 60 years old?	☐	☐	☐	☐	
Exposure: Have participants reported risk factors (including specific characteristics: perpetrator and victim characteristics) as measured or reported in: a. Interview b. Standardised self-report questionnaire (and adapted questionnaires) used to measure risk factors and/or perpetrator/victim characteristics associated with abuse c. Databases of information re elder abuse (e.g. Adult Protective Services Databases containing risk factor information)	☐	☐	☐	☐	
Comparison: Have findings indicated no known or identified risk factors or perpetrator/victim characteristics, and/or have other factors been identified?	☐	☐	☐	☐	
Outcome: Have participants experienced any form of violence, abuse and/or neglect as measured or reported in:	☐	☐	☐	☐	

a. Interview b. Standardised self-report questionnaires (and adapted questionnaires) used to measure violence, abuse and/or neglect in older adults c. Databases of information re elder abuse (e.g. Adult Protective Services Databases containing details of violence, abuse, neglect information)					
Statistical Analyses: The relationship between the exposure and outcome were established through multivariate analyses.	☐	☐	☐	☐	

Summary for inclusion or exclusion

Include in review ☐	**Exclude from review** ☐
Reason for exclusion:	
Independently assessed, and then compared? Yes ☐ No ☐	
Differences resolved: Yes ☐ No ☐	
Request further details? Yes ☐ No ☐	Contact details of authors:
Notes:	

DO NOT PROCEED IF PAPER EXCLUDED FROM REVIEW

Appendix 9. Systematic Review Quality Assessment Form: Risk of Bias Assessment.

Domain	**Presence**			**Support for judgement** *(include direct quotes with explanatory comments)*	**Location in text or source** *(page, figure, table, other)*
	Yes	No	Unclear		
Sampling/Selection Bias – caused by inadequate selection of participants					
Was the sample representative of the population they were selected from, e.g. are age ranges considered, rural/urban areas, higher/lower incomes, etc. included in the sample*?	☐	☐	☐	**Many studies will not present the overall age range, with mean and SD, but instead split the sample into age decades, or other categories. This can make it difficult to compare findings between studies. Research studies generally recruit people who are healthier, better educated and of higher (less deprived) socioeconomic status. Such factors may create bias in sampling/selection.*	
Risk of Sampling Bias	Low ☐ High ☐ Unclear* ☐				
Confounding Variables – selection bias caused by inadequate confirmation and consideration of confounding variables					

Are potential confounding variables appropriately dealt with*?	☐ ☐ ☐	*Were confounding variables controlled for when establishing relationships with certain variables, e.g. when establishing the relationship between SES and abuse, is age and/or gender controlled for?	
Measurement Bias for Exposure			
Was a standardised definition of risk factors used?	☐ ☐ ☐		
Was a standardised measure used to measures risk factors?	☐ ☐ ☐		
Was/were the tool(s) validated?	☐ ☐ ☐	If yes, how were tools validated?	
Risk of Measurement Bias for Exposure	Low ☐ High ☐ Unclear* ☐		
Measurement Bias for Outcome			
Was a standardised definition of violence, abuse and/or neglect used?	☐ ☐ ☐		
Was a standardised measure used for violence, abuse and/or neglect?	☐ ☐ ☐		

Was/were the tool(s) validated?	☐ ☐ ☐	If yes, how were tools validated?	
Risk of Measurement Bias for Outcome	Low ☐ High ☐ Unclear* ☐		
Attrition Bias due to amount, nature or handling of incomplete data			
Is the reported loss of participants more than 30%?	☐ ☐ ☐	*Acceptable loss: ≤30%*	
Are those who have completed the full survey the same as those who have completed only half the survey and dropped out?	☐ ☐ ☐		
Has the study reported how incomplete outcome data (missing data) has been handled?	☐ ☐ ☐	If yes, how has incomplete data been handled, what imputation methods have been used? *If none reported, mark as unclear.*	
Risk of Attrition Bias	Low ☐ High ☐ Unclear* ☐	*Lower risk would include few missing data or too few to make a difference to effect size.*	
Reporting Bias – caused by selective reporting of outcomes			
Has the study selectively reported outcomes?	☐ ☐ ☐		

Risk of Reporting Bias	Low ☐ High ☐ Unclear* ☐		
Other Bias – Bias due to problems not covered elsewhere in the table			
Was the main statistical analysis appropriate?	☐ ☐ ☐		
Were assumptions of data tested and data subsequently analysed appropriately? (e.g. normality, skew/kurtosis)	☐ ☐ ☐		
Are confidence intervals reported?	☐ ☐ ☐		
Are significance values reported to at least 0.05?	☐ ☐ ☐		
OVERALL QUALITY			
Risk of bias in different domains	☐ ☐ ☐		

Notes:

*Unclear bias refers to lack of information or uncertainty over the potential for bias (Cochrane Handbook).

Appendix 10. Systematic Review Data Extraction Form

General Information

Date of data extraction *(dd/mm/yyyy)*	
Name/ID of person extracting data	
Article Author(s)	
Article title	
Source (e.g. journal) *year/volume/pages/country of origin*	
Notes:	

Re-verification of study eligibility (tick if correct):			
Population ☐	Exposure ☐	Outcome ☐	Study Design ☐

Characteristics of included studies

Population and Setting

	Descriptions as stated in report/paper	Location in text or source *(page, figure, table, other)*
Population description Older adults over 60 years old, males and females		Page
Setting of population *(e.g. urban, rural, ethnic group, cultural group)*		Page
Recruitment procedures *(e.g. phone, mail, online)*		Page

Participants

	Descriptions as stated in report/paper	Location in text or source *(page, figure, table, other)*
Total number of participants/ sample size		Page
Age group		Page
Race/Ethnicity		Page
Other relevant socio-demographics		Page
Notes:		

Methods

	Descriptions as stated in report/paper	Location in text or source *(page, figure, table, other)*
Aim of study? *What was the study designed to assess? Are these clearly stated?* Elder abuse prevalence, risk factors, abuse subtypes, etc.		Page
Study design Cohort, cross-sectional, case-control		Page
Notes:		

Exposure

	Descriptions as stated in report/paper	Location in text or source *(page, figure, table, other)*
Type(s) of risk factor/ perpetrator/ victim characteristics identified		Page
Definition of risk factors *(if any, e.g. low social support)*		Page
Tool(s) used to measure risk factors/ perpetrator/ victim characteristics *E.g. interview, self-report, databases. Specific tool used?*		Page
Notes:		

Outcomes

	Description as stated in report/paper	Location in text or source *(page, figure, table, other)*
Type(s) of violence, abuse and/or neglect reported		Page
Definition of violence, abuse, neglect *(if any)*		Page

How was outcome measured? *E.g. interview, self-report, databases. Specific measurement tool used?*		Page
Drop-out rates, withdrawals and exclusions AND reasons for drop-out *(including proportion of participants of those who did not agree to participate, if possible)*		Page
Notes:		

Data Analysis

	Description as stated in report/paper	Location in text or source *(page, figure, table, other)*
Comparison/ prediction/ correlation		Page
Outcome/Results		Page
Any other results reported *(e.g. odds ratio, CI or P value)*		Page
Notes:		

Other

<table>
<tr><td></td><td colspan="4">Description as stated in report/paper</td><td>Location in text or source (page, figure, table, other)</td></tr>
<tr><td rowspan="2">Missing Information
If missing information, authors will be contacted and given 30 days to reply.</td><td>Yes</td><td>No</td><td>Unclear</td><td rowspan="2">If yes, have authors been contacted? Outcomes of contact?</td><td rowspan="2"></td></tr>
<tr><td>☐</td><td>X</td><td>☐</td></tr>
<tr><td colspan="6">Notes:</td></tr>
</table>

Appendix 11. Revised Inventory of Adverse Childhood Experiences – adapted for use with an older adult sample.

Experience of mistreatment and poly-victimisation was measured using 17-items based on the Revised Inventory of Adverse Childhood Experiences (R-ACE; Finkelhor, Shattuck, Turner & Hamby, 2015). The R-ACE was adapted to address the older adult population.

Several items closely matched those within the R-ACE, with additional items addressing psychological and financial abuse. Respondents were asked whether they had experienced/witnessed any of the following forms of mistreatment during their lifetime: *prior to 60 years old*, *since turning 60*, and *during the past year*.

Items addressing abuse subtypes started with the statement '*Have you experienced anyone…'* followed by a description of the abuse subtype, as follows:

Emotional Abuse

a. Swear at you, insult you, put you down or humiliate you?
b. Act in a way that made you afraid that you might be physically hurt?

Psychological Abuse

a. Preventing you from seeing other family members or friends, or stopped you from going out?
b. Accuse you of spending too much time with other people, or become jealous of who you spend time with?

Physical Abuse

a. Push, grab, slap, or throw something at you?
b. Ever hit you so hard that you had marks or were injured?

Sexual Abuse

a. Touch or fondle you or have you touch their body in a sexual way without your consent?
b. Attempt to or actually have oral, anal, or vaginal intercourse with you without your consent?

Financial Abuse

a. Spend your money or sell your property without your permission?
b. Steal money from you, or take your possessions for themselves, for friends or to sell?
c. Forge your signature without your permission in order to sell your property or to get money from your bank accounts?

Items addressing subtypes of neglect started with statement *'Have you felt that…'*, followed by a description of the neglect subtype, as follows:

Emotional Neglect

a. No one loves you or thinks you are important or special?

b. Your loved ones (family, friends) do not look out for each other, feel close to each other or support each other?

Physical Neglect

a. You did/do not have enough to eat or drink, or that you had/have to wear unclean clothes, and had/have no one to protect you?
b. You did/do not have enough support or were not helped when you needed it (e.g. take care of you or take you to the doctors if you needed it, etc.)?

The final items asked about isolation and rejection and exposure to community violence.

Isolation and Rejection

a. Have you ever felt lonely, rejected or that nobody liked you?

Exposure to Community Violence

a. Have you ever lived in a neighbourhood that was dangerous or where you saw people being assaulted?

Appendix 12. Responding to experiences of mistreatment questions.

All abuse (emotional, psychological, physical, sexual, and financial) and neglect (emotional and physical) items included the additional question about responding. Following completion of these items, respondents were asked about the possible ways in which they could respond. Respondents were asked to provide details about previous experiences of mistreatment, alongside how they would respond to future experiences. Respondents were asked to select all that applied.

Personal Experiences

Past Experiences

1) How did you respond to your own previous experiences of this kind?
    a. Talked to a relative or friend about your own experience/situation
    b. Reported to the Police or relevant authorities yourself
    c. Obtained support from self-help groups or programmes
    d. Accessed an emergency shelter
    e. Obtained information about helplines and support networks
    f. Obtained support yourself
    g. I did not feel comfortable responding in any way
    h. Other, please state……

Future Experiences

2) If you were to experience this in the future, how would you respond?
    a. Talk to a relative or friend about your own experience/situation
    b. Report to the Police or relevant authorities yourself
    c. Seek support from self-help groups or programmes
    d. Access an emergency shelter
    e. Obtain information about helplines and support networks
    f. Obtain support yourself
    g. I would not feel comfortable responding in any way
    h. Other, please state……