Primary prevention interventions for elder abuse: Results from a systematic review

Prepared by:
Dr. Ebenezer Owusu-Addo[1], Dr. Kate O'Halloran[1], Associate Professor Bianca Brijnath[1,2], and Professor Briony Dow[1,3].

[1] National Ageing Research Institute | [2] Curtin University | [3] University of Melbourne.

A systematic review of evidence

Primary Prevention Interventions for Elder Abuse

Prepared for Respect Victoria on behalf of National Ageing Research Institute.

Contributing Authors:
Dr. Ebenezer Owusu-Addo
Dr. Kate O'Halloran
A/Prof. Bianca Brijnath
Prof Briony Dow

Enquiries regarding this report may be directed to:
Associate Professor Bianca Brijnath
Director Social Gerontology
National Ageing Research Institute (NARI)

E b.brijnath@nari.edu.au

Suggested citation: Owusu-Addo E, O'Halloran K, Birjnath B and Dow B. 2020. *Primary prevention interventions for elder abuse: A systematic review*. Prepared for Respect Victoria on behalf of National Ageing Research Institute.

Table of Contents

Executive summary

Background

Elder abuse is a significant global criminal justice, public health, and human rights issue. A recent systematic review and meta-analysis estimates the global prevalence of elder abuse in community settings at 15.7%, while within institutional settings, the global prevalence of elder abuse is estimated at 64.2%. With estimates from the United Nations suggesting that the number of people aged 60 years and above will increase to about 2 billion by 2050, the problem of elder abuse is a major concern. Elder abuse has deleterious consequences for the health and wellbeing of older people, as well as enormous social costs, warranting attention of policymakers, healthcare providers and researchers as a serious public health issue.

Although a number of systematic reviews and/or meta-analyses have to date been conducted assessing the effectiveness of elder abuse interventions, these have not had a specific focus on primary prevention programs targeted at the drivers of elder abuse.

This systematic review was carried out as part of a larger research project focusing on the prevention of elder abuse. While this review was initially limited to primary prevention elder abuse programs, this ultimately resulted in too few results to analyse. A decision was therefore made to include some secondary prevention or early intervention programs in order to consider the factors that influence the effectiveness of elder abuse interventions (regardless of whether their focus is primary or secondary prevention). This also meant that – despite this project's focus on family violence - we extended our inclusion criteria to incorporate some studies focused on institutional settings where these learnings were relevant for primary prevention, or more broadly impacted the effectiveness of prevention programs. Thus, the review aimed to synthesise evidence on the effects of primary (and some secondary) interventions in tackling the drivers or risk factors of elder abuse, and to identify the factors that influence the effectiveness of elder abuse programs or interventions (both primary and secondary). The review was guided by the following questions:

1. Which drivers (and risk factors) of elder abuse have been the focus of primary (and secondary) prevention programs/interventions?
2. What are the effects of primary (and secondary) prevention interventions in tackling the drivers and risk factors of elder abuse?

3. What are the factors that influence the effectiveness of elder abuse interventions?

Summary of methods

The review was guided by the elder abuse conceptual framework developed by Dow and colleagues, which identifies both elder abuse drivers and/or risk factors as well as potential interventions at individual, community, and societal levels. The search for literature was performed in the following databases Ovid Medline, Ovid Embase, AgeLine, PsycINFO, Web of science, and Sociological abstracts. A targeted search was conducted in WHO's online portal Violence Info (an information system that collates published scientific information on the main type of interpersonal violence) as well as the following journals for relevant articles: Age and Ageing, Journal of Elder Abuse and Neglect, The Gerontologist, The Journal of Gerontology Social Sciences and Psychological Sciences, and Gerontology. The reference lists of retrieved articles and systematic reviews were manually searched for additional studies. Studies published in peer reviewed journals and grey literature between 2000 and 2019 were included. The literature search yielded 10,987 articles of which 172 full-text articles were screened for eligibility. Thirteen articles reporting on 12 interventions/studies were finally included in the review.

Main findings

Study characteristics

Twelve studies evaluating the effects of elder abuse primary or secondary prevention interventions met the review inclusion criteria, two of which were randomised controlled trials. A total of 2126 participants were involved in the twelve studies. Of these, 1153 were older people, 479 were caregivers, 255 were young adults and 238 were professionals/service providers. Six of the studies were targeted at older people, four each focused on caregivers and young adults/were intergenerational in nature, three were targeted at professionals/service providers, and one was a dyadic intervention (pairing caregivers and older adults with dementia). Five of the studies took place in institutional settings while eight took place in community settings.

Types of interventions

The review covered four types of elder abuse primary and secondary prevention interventions: intergenerational programs; educational/psychological interventions for caregivers;

educational interventions for practitioners/professionals; and multidisciplinary team interventions. With the exception of the intergenerational programs that act as primary prevention strategies at the community and societal level, we did not find any other macro-level primary prevention strategies. Except for two studies - one focused on psychological abuse and the other financial elder abuse - all other interventions focused on multiple forms of abuse.

Drivers of abuse addressed by included studies

Five of the interventions focused on tackling caregiver risk factors for elder abuse. All four intergenerational interventions included in the review addressed ageism and social isolation, with one having an additional focus on the marginalisation of LGBT older people. Two interventions focused on addressing organisational level risk factors for elder abuse (i.e. reducing the incidence of abusive care environments). Three interventions focused on addressing risk factors specific to older people. In line with the review conceptual framework, we did not find any interventions addressing structural elder abuse drivers such as gender inequality or other forms of marginalisation or discrimination (aside from homophobia and transphobia). .

Factors influencing implementation and intervention effectiveness

While implementation approaches varied, strong evidence was found for the significant role of partnership across organisations, collaborative partnership (alliance among professionals, and alliance between health professionals, and older people and caregivers), co-design and person-centred approaches in optimising programs' impacts. In relation to the drivers of change that explain how and why interventions worked or failed to work, the most compelling evidence was for social interactions (largely engendered in group-based interventions), multi-component interventions, tailoring of interventions, motivational interviewing, booster sessions, and multi-professional team approach to program design and delivery. In conjunction with the use of participatory approaches, the operation of these factors played a key role in increasing program uptake and improving program effectiveness.

Gaps in the evidence

The gaps in the evidence identified relate firstly to the lack of primary prevention elder abuse programs available to review. Other issues included limited focus of interventions on

macro/structural drivers of elder abuse; limited elder abuse outcome measures; lack of quality evaluations including limited use of theoretical frameworks; and limited description of interventions and implementation processes.

Conclusion

This review has shown that there is limited high-quality evidence regarding the implementation, evaluation and effectiveness of elder abuse primary prevention interventions. The review has identified four primary or secondary prevention strategies that appear to have the potential for targeting the drivers or risk factors of elder abuse:

- Intergenerational programs
- Caregiver psycho-educational programs
- Educational programs for professionals, and
- Multi-sectoral/disciplinary team interventions

The review has also shown that the effectiveness of elder abuse interventions is contingent on a number of factors including the type of implementation approaches used, and the specific mechanisms that may be at play during the implementation process. The gaps in the evidence identified in this review provide further direction to policy makers, researchers and evaluators regarding the development, adaptation, implementation and evaluation of elder abuse primary prevention interventions. Of importance to both elder abuse policy and practice is the need to pay attention to the development, implementation and evaluation of macro level primary prevention interventions such as policies fostering positive attitudes to ageing, addressing gender inequality and other forms of discrimination or marginalisation, which are identified drivers of elder abuse.

1. Background

The World Health Organization defines elder abuse 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’ [1]. There are various forms of elder abuse within this broad categorisation including physical, emotional/psychological, sexual, financial/economic, social and neglect [2, 3]. Elder abuse can be perpetrated by family members, a formal or informal caregiver or acquaintance, and can occur in the home, community or institutional settings [4-6].

Elder abuse is a significant global criminal justice, public health, and human rights issue. A recent systematic review and meta-analysis by Yon et al [7] estimates the global prevalence of elder abuse in community settings at 15.7%. Within institutional settings, Yon et al.’s [3] second systematic review and meta-analysis estimates the global prevalence of elder abuse at 64.2%.

Until the results of the 2020 population-level study of the prevalence of elder abuse in Australia are reported, the true prevalence of elder abuse in Australia will remain unknown. Smaller-scale studies, including a paper from the Australian Institute of Family Studies, estimates the prevalence to be anywhere between 2 and 14%, with the rates of neglect possibly higher [6, 8]. Further, Australian data reveals that the experience of elder abuse is gendered, and most commonly occurs within the family context. Analysis of two years of data from the Senior Rights Victoria helpline in conjunction with National Ageing Research Institute (NARI) showed that the number of older women reporting abuse is approximately 2.5 times that of older men, and that 92% of abuse occurs from a family member (with 67% perpetrated by a son or daughter of the older person) [9]. It has also been noted that particular communities may be more likely to experience different kinds of abuse (such as people from culturally and linguistically diverse (CALD) backgrounds being particularly vulnerable to financial abuse due to language and literacy barriers [10] and risk factors for abuse such as social isolation [11, 12]).

However, it is likely that elder abuse, like other forms of family violence, often goes unreported and these figures may be an underestimation [13]. This is often because the victims fail to recognise the situation as abusive; are ashamed or embarrassed, or fear consequences for the perpetrator. Thus, while victims want the abuse to stop, many express ambivalence because of

the potential fallout for the family member who has harmed them, and out of concern for their relationship [14].

With estimates from the United Nations (UN 2015) suggesting that the number of people aged 60 years and above will increase to about 2 billion by 2050, the problem of elder abuse should be a major concern. Elder abuse has deleterious consequences for the health and wellbeing of older people and enormous social costs. Its impacts include decreased quality of life; morbidity; mortality; depression; anxiety; fear; other psychological stress such as feelings of unworthiness; substance abuse and in some cases, suicide [15]. This warrants the attention of policymakers, healthcare providers and researchers as a serious public health issue.

The drivers of elder abuse are poorly understood, and there is no Australian, evidence-based Primary Prevention Framework for addressing elder abuse, although one is (at the time of writing) under development by the Victorian Government's Department of Health and Human Services. For the purposes of this project, and systematic review, primary prevention can be defined as addressing the "underlying causes – or drivers – of violence. These include the social norms, practices and structures that influence individual attitudes and behaviours." [16]Drivers are sometimes also explained as the "most consistent predictors" of violence, as in *Change the Story*, the primary prevention framework for understanding violence against women [17]. Targeting drivers of elder abuse is therefore the domain of primary prevention, which should be understood as distinct from early intervention, or secondary prevention, which by contrast "aims to change the trajectory for individuals at higher-than-average risk of perpetrating or experiencing violence" [17].

While there is some understanding of the risk factors of elder abuse, drivers have been much less extensively explored. This may be in part because drivers are more complex to identify. Nonetheless, existing literature suggests that ageism (including stereotypes and discrimination of older people or groups on the basis of their age) is a significant driver. A report by Senior Rights Victoria, meanwhile, concluded that "while ageism is clearly a main driver of elder abuse, gender inequality often acts as an accompanying driver," [18] with gender inequality named elsewhere as another likely driver of elder abuse [19]. Other possible drivers discussed in more recent work done in the Victorian context include intersecting forms of discrimination, including racism, homophobia, transphobia, ableism and more [18]. Finally, capitalism – or a

society where a person's worth is defined by their capacity to contribute financially – has also been considered as a potential driver of elder abuse [20].

For the purposes of this review, it is worth also reiterating that in Victoria, but not in all other states or all other countries, elder abuse is considered a form of family violence under the Family Violence Protection Act 2008. Elder abuse was also considered as an issue of importance in the Victorian Royal Commission into Family Violence of 2016. Indeed, family violence against older people is addressed in three of the Commission's recommendations [21]:

153: Resource the development and delivery of information on family violence of older people
154: Workers delivering community care services complete certified training in family violence and review the existing Community Services Training Package course
155: Scope options for a trial of a dedicated family violence and elder abuse response team.

Nonetheless, there remain issues in terms of appropriate response to elder abuse due to a lack of agreement as to whether elder abuse should be seen as a subset of family violence, or an area requiring separate policy/service responses [13]. In particular, there are overlaps with other forms of family violence, including cases of intimate partner violence (where violence against older women by their partners may be classified as elder abuse), which means that victims can fall through gaps in service provision.

This systematic review seeks to canvas what work has been done globally to address the problem of elder abuse at the primary prevention level. There have been a number of systematic reviews and/or meta analyses to date which have focused on the effectiveness of elder abuse interventions, including caregiver interventions [22, 23], emergency shelter [24, 25], helplines [26, 27], and money management programs [28, 29]. However, these have largely focused on high income countries and have also not included qualitative studies focusing on the impacts of elder abuse interventions [30-33], meaning the evidence to date is incomplete. These reviews have also not had a specific focus on primary prevention interventions targeted at the drivers of elder abuse.

Finally, it is important to note that while this review was initially limited to primary prevention elder abuse programs, this ultimately resulted in too few results to analyse meaningfully. A decision was therefore made to include some secondary prevention or early intervention

programs in order to consider the factors that influence the effectiveness of elder abuse interventions (regardless of whether their focus is primary or secondary prevention). As the UK Medical Research Council (MRC) has highlighted, it is important to understand the range of factors which may influence the implementation of complex interventions [34] particularly in terms of their effectiveness to adequately inform evidence-based policy and practice. This also meant that – despite this project's focus on family violence - we extended our inclusion criteria to incorporate some studies focused on institutional settings where these learnings were relevant for primary prevention, or more broadly impacted the effectiveness of prevention programs.

2. Review aim and questions

This review aims to synthesise evidence on the effects of primary prevention (as well as some secondary prevention) interventions in tackling the drivers of elder abuse. This includes identifying the factors that influence the effectiveness of both primary and secondary elder abuse prevention interventions. The review is guided by the following questions:

4. Which drivers (and risk or reinforcing factors) of elder abuse have been the focus of primary and secondary prevention interventions?
5. What are the effects of primary and secondary prevention interventions in tackling the drivers of elder abuse?
6. What are the factors that influence the effectiveness of elder abuse interventions at the primary and secondary prevention level?

3. Methods

This review was conducted in line with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement [35]. The approach described in the Cochrane Handbook for Systematic Reviews of Interventions [36] also served as a guideline for the review.

3.1. Review conceptual framework

Dow et al.'s [37] conceptual framework for elder abuse (see Figure 1) was used to guide this review. This framework identifies elder abuse drivers and risk factors (for both the individual and person of trust) as well as potential interventions at the individual, community, and societal levels. While the framework helps to understand some of the possible drivers of elder abuse, it also provides a useful conceptualisation of the various types of interventions at the individual,

relationship and person of trust, community and society levels that could be used to address the drivers, risk and/or reinforcing factors of elder abuse.

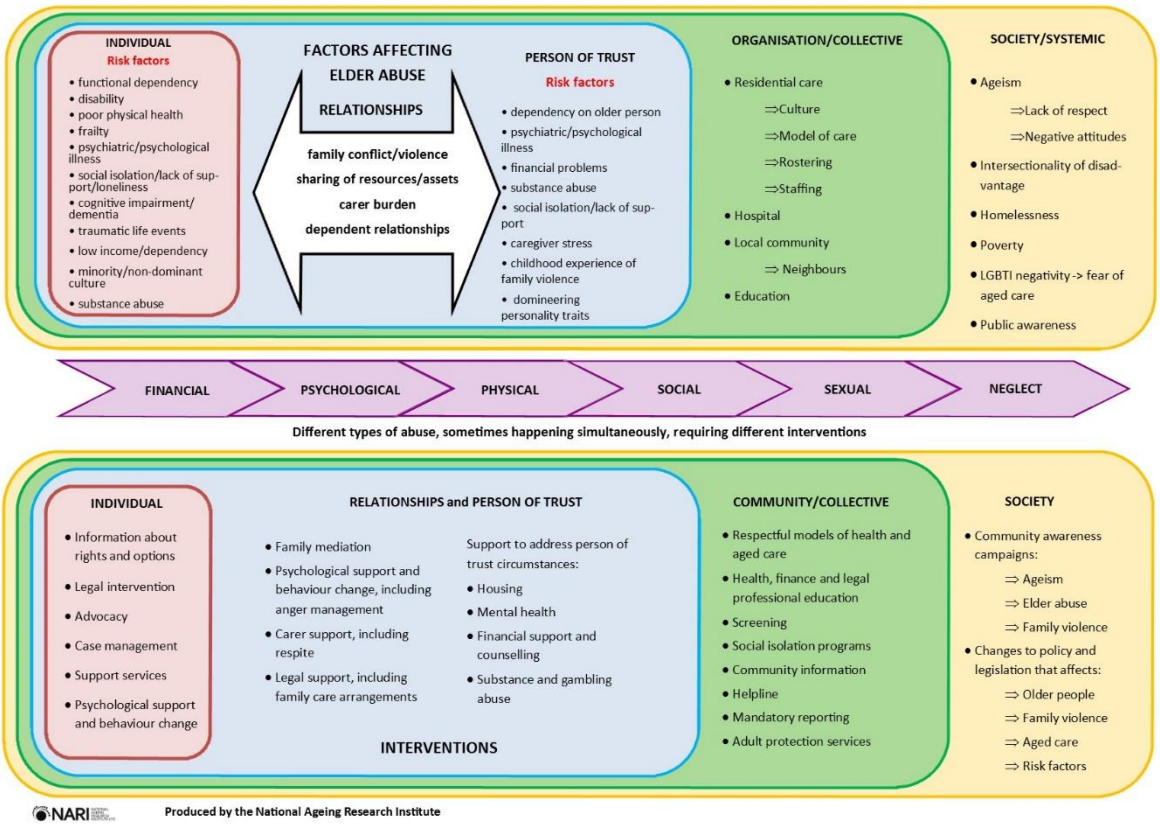

Fig. 1: Conceptual framework for elder abuse interventions

3.2 Eligibility criteria

The inclusion and exclusion criteria in this review, including the PICOS (Population, Intervention, Comparison, Outcome, and Study design), are described below.

Population – The population of interest to this review are articles focusing on primary prevention (and occasionally secondary prevention) of elder abuse targeted to older people, caregivers, family members, other perpetrators of acts of elder abuse, health professionals responsible for treating or preventing elder abuse, and the community. We included studies focusing on persons aged 60 and older living in communities or institutions (such as residential care or health facilities).

Interventions – This review focused on primary prevention interventions (as well as some secondary prevention programs) targeted at elder abuse, with primary prevention defined as

addressing the "underlying causes – or drivers – of violence. These include the social norms, practices and structures that influence individual attitudes and behaviours." [16] In line with the review conceptual framework, primary prevention interventions can plausibly be targeted at different levels reflecting the socio-ecological approach, that is, at individual, relationship and person of trust, community and societal levels. This further aligns with De Donder's [38] classification of elder abuse primary prevention interventions as targeting the macro level (such as public information campaigns on elder abuse and public anti-ageism campaigns), exo-level (such as intergenerational programs and awareness and education programs) and meso-level (such as social network strengthening programs).

Given the lack of 'pure' primary prevention programs for elder abuse, the range of interventions that were eligible for inclusion in the review were expanded to include caregiver interventions, money management programs, government policies and legislation on elder abuse, advocacy initiatives, and health system interventions (e.g. active service models). Interventions focusing on one or more of the following types of elder abuse: physical, psychological/emotional, sexual, financial, and neglect were included. Interventions focusing on self-neglect or homicide were excluded.

Comparator – Studies were included if they (a) include comparison with usual care or another intervention, or if they (b) include a limited or no intervention comparison group.

Outcomes – This review focused on both effectiveness and intervention implementation. The outcomes of interest in relation to intervention effectiveness included, but are not limited to: (a) incidence/occurrence of elder abuse, (b) empowerment of older adults in the context of elder abuse, (c) quality of life, (d) safety and security of older adults in the context of elder abuse, (e) prevention of social isolation, (f) awareness, detection and prevention of elder abuse amongst the health care sector (g) increase in the capacity of older people to live independently, and (h) improvement in attitudes towards elder abuse. Intervention implementation outcomes of interest include (a) approach and process to intervention implementation, and (b) drivers of implementation.

Study design – This review considered a wide range of study designs to provide rich data in terms of intervention effectiveness and implementation factors from both quantitative and qualitative evidence. Study designs therefore included randomised-controlled trials (RCTs),

cluster RCTs, interrupted time series, uncontrolled or controlled trials, controlled before-and-after studies, mixed-methods studies and qualitative studies. Eligible qualitative studies comprised of stand-alone investigations of impacts of primary (and some secondary) prevention interventions for elder abuse, including those reporting the perceptions of older people and/or stakeholders, and those embedded in included quantitative studies. The use of qualitative studies here was to provide insights into a broader range of effects that primary prevention strategies may achieve in preventing elder abuse. Studies were excluded if they were not published in English.

3.3. Literature search

The search for literature was performed in the following databases Ovid Medline, Ovid Embase, AgeLine, PsycINFO, Web of science, and Sociological abstracts. The following key words were used to guide the search: (Older adult* OR elder* OR frail elderly OR aged OR senior* OR senior citizen*) AND (abuse OR neglect OR assault OR mistreatment OR maltreatment OR violence OR exploitation OR restraint OR anger OR conflict* OR aggression OR intergenerational elder abuse) AND (intervention* OR prevention OR program* OR project OR training OR education OR model* OR policy OR law* OR regulation* OR intergenerational intervention* OR driver* OR power of attorney). Targeted search was conducted in WHO's online portal Violence Info (an information system that collates published scientific information on the main type of interpersonal violence) as well as the following journals for relevant articles: Age and Ageing, Journal of Elder Abuse and Neglect, The Gerontologist, The Journal of Gerontology Social Sciences and Psychological Sciences, and Gerontology. The reference lists of retrieved articles and systematic reviews were manually searched for additional studies. Studies published in peer reviewed journals and grey literature between 2000 and 2019 were included.

3.4 Data extraction

A data extraction tool was developed and piloted to ensure consistent and rigorous data collection. For each included study, one independent reviewer extracted descriptive data pertaining to: study design, setting (e.g. country and organisation type); participant information (e.g. sample size and demographic information); intervention description (e.g. the intervention development process duration, and cost); measurement tools used, and data relating to outcomes and intervention implementation (i.e. approaches to implementation, delivery

implementation drivers, duration and intensity). To ensure accuracy and consistency of data extraction, a 20% random sample will be coded by a second reviewer.

3.5 Quality assessment

To assess the quality of the range of study designs included in this review, the most appropriate tool for each study design was used including: Cochrane Risk of Bias Tool [36] for randomised controlled trials (RCTs) and cluster RCTs; Risk of Bias in Non-Randomised Studies-of Interventions [39] for non-randomised trials; and the Mixed-Methods Appraisal Tool [40] for mixed methods studies. Qualitative studies linked to included intervention studies will be quality assessed using the Joanna Briggs Institute's [41] Qualitative Assessment and Review Instrument. All eligible studies were judged as 'high' 'moderate' or 'low' quality, given an overall consideration of the risk of bias assessment/quality appraisal and the potential impact of the identified risks on the study results.

While a formal assessment of quality of the included studies was conducted to potentially explain differences in results of otherwise similar studies, all studies were included in the review regardless of quality assessment. This was to allow the inclusion of qualitative data from a range of study designs that may shed light on the broader impacts of primary prevention interventions for elder abuse, and the factors important for the implementation of elder abuse interventions. One independent reviewer performed the quality assessment.

3.6 Data synthesis

A narrative synthesis was used to summarise the results following the approach recommended by Popay et al. [42]. This approach entailed undertaking a preliminary synthesis of the findings, exploring the relationships in the data, and assessing the robustness of the synthesis. At the initial synthesis stage, the data extracted from the included studies were used to provide a textual and a visual summary of the results using summary of findings tables. The stage of exploring relationships between and within studies involved identifying drivers of implementation that explain how and why the intervention worked or failed to work.

4. Findings

4.1 Search results

The PRISMA flow chart (Figure 1) shows the studies' selection process. The literature search yielded 10,987 articles of which 172 full-text articles were screened for eligibility. Twenty-one full-text articles meeting the inclusion criteria were considered for data extraction. At the data extraction stage eight studies were found to be secondary prevention interventions without relevance to primary prevention in terms of factors that influence program effectiveness, and were therefore excluded from the review. Thirteen articles reporting on a mix of 12 primary and secondary interventions/studies were finally included in the review. One study [43] from Australia entitled the Older People: Equity, Respect and Ageism (OPERA) project was awaiting assessment.

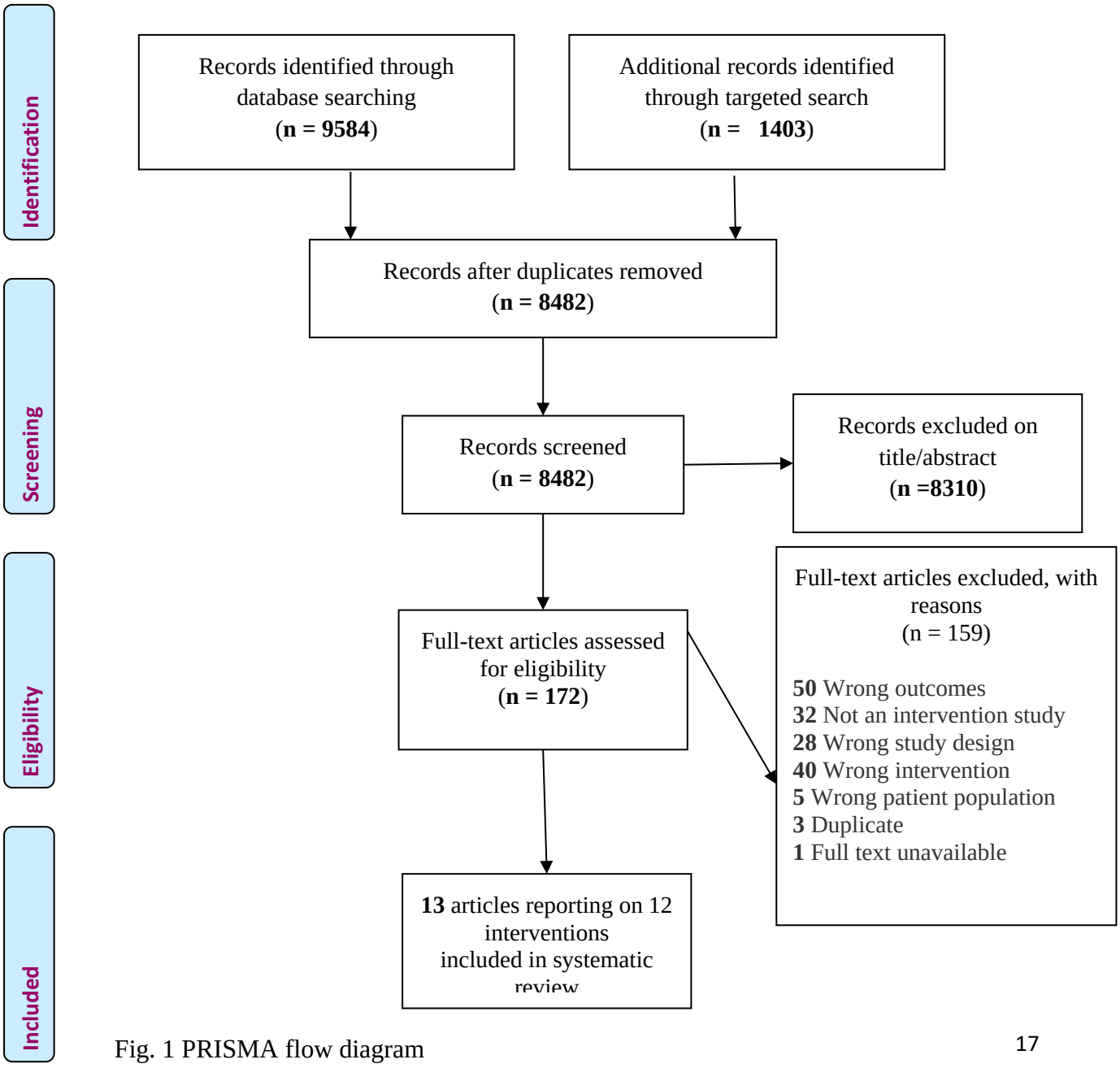

Fig. 1 PRISMA flow diagram

4.2 Characteristics of included studies

Appendix 2 provides details of the included studies. The included articles comprised of five pre-post experimental designs [44-47], three randomised controlled trials (RCTs) [23, 48, 49], one each of controlled-before [50] and after study, qualitative action research [51], population-based cross-sectional study [52], mixed methods [53] and art-based research design [54]. All 12 interventions included in the review were from high income countries (USA five, UK two, and one each from Italy, Canada, Japan, Taiwan, and Israel).

4.2.1 Study quality assessment

All included studies were assessed for their risk of bias and/or quality issues using the most appropriate tool for each study design. Generally, the majority of the studies (n=10) included in the review did not have a comparator group, which raises concerns about internal validity and trustworthiness of the studies across the included body of research. Appendix 1 provides details of the study quality assessment.

Of the two RCTs included in the review, one [23, 48] was judged as having no domains at high risk of bias. The second study [49] had one risk of bias. This was primarily as a result of lack of blinding of participants and personnel (performance bias) which may have resulted in reporting or social desirability biases. It must be noted however, that, due to the very nature of these types of health promotion interventions, is very difficult to mitigate this, although the use of objective measurement tools can help mitigate recall/reporting biases.

All the non-randomised trials were determined to be of serious-risk of bias [44, 46, 49, 50, 52, 55]. The main reasons for giving an overall assessment of serious-risk of bias related to selection bias, lack of adequate control of confounders or the use of subjective measurement of outcomes. Of the two mixed-methods studies, one was of moderate risk of bias [47] while other was of high risk of bias [53]. The main quality issue here concerned a lack clarity on integration, sample representativeness, and researcher influence. The qualitative study [51] included in the review was judged to be high credibility and dependability even though he philosophical underpinnings and the link to theory were unclear.

4.2.2 Characteristics of the intervention target groups

As shown in Appendix 2, a total of 2126 participants were involved in the twelve studies. Of these, 1153 were older people, 479 were caregivers, 255 were young adults and 238 were professionals/service providers. Six of the studies were targeted at older people [47, 51-55], four each focused on caregivers [23, 44, 50, 56] and young adults (or were intergenerational in nature) [46, 51, 52, 54], three were targeted at professionals/service providers [45, 49, 57], and one on dyads (caregivers and older adults with dementia) [47]. Five of the studies took place in institutional settings [44, 47, 49-51] while eight took place in community settings [23, 45, 46, 52, 54-56, 58].

4.3. The nature of included elder abuse interventions

Table 1 provides details of the nature and key components of the interventions included in the review.

4.3.1 Types of interventions

Of the 12 studies, the types of elder abuse primary (or secondary) prevention interventions identified included: intergenerational programs (n=4); educational/psychological interventions for caregivers (n=4); educational interventions for practitioners/professionals (n=2); and multidisciplinary team interventions (n=2). Three interventions directly focused on older people who were at risk of elder abuse [47, 55, 57]. We found only one macro/system level system level intervention (public anti-ageism campaigns targeted at the general public), which challenged stereotypes and focused on human rights and respect for older people [54]. We did not find any macro-level primary prevention strategies such as public information campaigns on elder abuse, which aim to raise awareness and knowledge of elder abuse in the general population and stimulate people to seek information and support services. The OPERA project in Australia, which was awaiting assessment as the full evaluation report was not ready at the completion of the literature search, aimed to create and evaluate a community-based intervention that could contribute to awareness and disruption of ageism and ageist behaviours.

4.3.2 Type of abuse addressed by interventions

Except for Murayama et al. [52] and Mills et al. [45], which focused largely on psychological and financial elder abuse respectively, all other interventions focused on multiple forms of abuse.

4.3.3. Drivers of abuse addressed by included studies

Five of the interventions focused on tackling caregiver risk factors for elder abuse [23, 44, 47, 50, 55, 56]. All four intergenerational interventions included in the review addressed ageism and social isolation [46, 51, 52, 54], with one having an intersectional focus on discrimination against LGBTI people [54]. Two interventions focused on addressing organisational-level risk factors for elder abuse (i.e. reducing the incidence of abusive care environments) [45, 49]. Three interventions focused on addressing risk factors for older people [47, 53, 55]. In line with the review's conceptual framework, we did not find any interventions addressing elder abuse drivers such as gender inequality or other structural factors. We also did not find interventions targeted at advocacy or empowerment-based interventions.

Table 1: Description of primary (or secondary) prevention elder abuse interventions included in the review

Country	Name of intervention	Implementation period/follow-up	Aim of intervention	Type of elder abuse intervention	Type of abuse	Drivers or risk factors addressed	Key features/components of intervention
Drossel et al. 2011 USA	Dialectical Behavior Therapy (DBT) Skills Training Program	Not stated	To examine the impact of DBT on high risk caregivers for elder abuse when caring for a family member with dementia	Caregiver educational intervention	Multiple forms of elder abuse	Caregiver risk factors for elder abuse (depression anger, carer stress and burden)	DBT skills group: A 9-week group (2.5-hour sessions) for caregivers of a family member with dementia. The group included skills in mindfulness, interpersonal effectiveness, emotional regulation, & distress tolerance. Booster group sessions provided at the request of caregivers at 12 weeks. Intervention delivered by PhD students
Mills et al. 2012 USA	Elder Investment Fraud and Financial Exploitation (EIFFE) Educational Program	6-months follow-up	To raise awareness of the risk factors and warning signs of vulnerability to EIFFE among clinicians, clinical support staff, and family	Educational intervention	Financial mistreatment	Organisational level	Education presentation – 45 min PowerPoint session, designed to raise awareness about the prevalence and consequences of EIFFE A clinician pocket guide – a quick reference for clinicians when suspicions arise that a patient may be vulnerable to EIFFE

							Patient education brochure for patients and their caregivers Clinical and financial experts presented
Hafford and Nguyen 2016 USA	Take AIM against Elder Abuse: The Abuse Intervention Model (AIM)	2014-2015 3 months follow-up	To addressed care recipients' aggressive behaviour, resistance to care, and activities of daily living (ADLs) dependency due to dementia and caregivers' anxiety, depression, and burden.	Educational	Multiple forms of elder abuse	multiple forms of abuse, neglect, and exploitation and its co-occurrence	A multi-component intervention focusing on care recipient/ caregiver dyad Intervention included baseline and follow-up risk assessments, linkages to existing services in the community to address identified needs and risks, and home visits over the course of three months. Development and implementation of an assessment tool that generated a risk profile and a *Toolkit of Existing Interventions* that specifically addressed the identified risk factors.
Livingston et al. 2013 UK	Strategies for Relatives (START) intervention	2009-2011 4 and 8 months follow-up	To examine the effectiveness of START at reducing abuse, anxiety, & depression in	Educational	Multiple forms of elder abuse	Caregiver risk factors for elder abuse (depression anger, carer stress and burden)	START: a manual based Coping With Caregiving (Gallagher-Thompson, 2002), intervention comprising eight

			caregivers of a family member with dementia				sessions: psychoeducation about dementia, carers stress, and where to get emotional support; understanding behaviours of the family member being cared for, and behavioural management techniques; changing unhelpful thoughts; promoting acceptance; assertive communication; relaxation; planning for the future; increasing pleasant activities; and maintaining skills learnt. The intervention was delivered by supervised psychology graduates, and took place in carers homes TAU: Consisted of an assessment, diagnosis, information giving, risk assessment/management, drug treatment, practical support, etc
Cooper et al., 2016 UK	Strategies for Relatives (START) intervention	4, 8, 12, and 24 months follow-up	Examined whether reductions in depression & anxiety in family	Educational	Same as Livingston et al. 2013	Same as Livingston et al. 2013	Same as Livingston et al. 2013

			caregivers reduces abusive behaviors toward persons with dementia in the hom				
Hsieh 2009 Taiwan	Educational support group intervention	6 months (January- June 2008) Assessment done one week prior to and one week following the intervention	To examine the effectiveness of an educational support group in alleviating caregiver's psychological abusive behaviour, reducing work stress and promoting knowledge of geriatric care-giving among a group of caregivers	Educational	Multiple forms of elder abuse	Caregiver risk factors for elder Abuse	The intervention consisted of eight 90-min teaching sessions: Five cohorts of educational-support group interventions from two facilities were held weekly; program covered the content of aging and associated problems related to managing residents' health problems, institutional elder abuse, factors associated with caregivers' abuse behaviour, relaxation and stress management etc. A trained graduate nurse serve as group facilitator. For each session, the lecture topic was given 30 for minutes, the following 40 minutes allowed for free sharing and mutual support among group members and last 20 minutes for integrative discussion. The health educational and skills-based programmes

							were developed for the elderly and their families to provide them with the skills to communicate effectively, manage stress, resolve conflicts, and promote healthier relationships. The control group did not receive any extra intervention.
Santini et al. 2018 Italy	Intergenerational program (IGP)	Not stated	To create community spaces and activities in which adolescents, institutionalized older adults, and active older volunteers could meet and interact with each other.	Intergenerational	Multiple forms of elder abuse	Ageing	Program components: learning sessions based on manual arts; biographical self-narration; playing games; acting; music and choral activities; self-narration; and life stories
Robson et al. 2018 Canada	Intergenerational program (IGP)- Raising Awareness and Addressing Elder Abuse in the LGBT Community project		To raise awareness of elder abuse as it exists in the LGBT community and to address gaps and silences in the public discourse about this topic.	Intergenerational	Multiple forms of elder abuse	Ageism Intersectionality of disadvantage LGBTI negativity	Youth and elder adults created videos and poster/fact sheets to raise awareness of the issue of elder abuse in the LGBT community. Program components: Education session for the youth and elders – on

			To build capacity, agency, and understanding in the LGBT youth and elders who took part in the project and learned and applied skills of script writing, filming, acting, composition, directing, and editing as they worked together to produce the materials.				definitions of elder abuse, forms of elder abuse, and the distinction between elder abuse and more generic forms of oppression that occur in the LGBT community *Digital Arts Workshops and Process* - the youth and elders co-constructed ideas and scenarios for videos and poster/fact sheets on the topic of elder abuse in the LGBT community. As *Capacity Building Workshops* - both youth and elders had opportunities to learn some of the basics of script writing, editing, concept design, direction, film editing, public speaking, and project management.
Hayslip Jr. 2015 USA	Elder Abuse Education	One-month follow-up	to examine the nature of interventions that might best minimize attitudes of tolerance and behavioural intentions of elder abuse	Intergenerational	Multiple forms of elder abuse	Ageism Social isolation	Intervention groups (a) Elder Abuse Education (58 participants)- participants received a handout on elder abuse and discussed the various definitions of elder abuse, viewed a firm on elder abuse, and analysed cases of elder abuse

			regarding older persons				(b) Aging Education (60 students) – participants received a handout on aging and discussed various definitions of aging; viewed and discussed a film on issues of aging (c) Family Education (58 students) consisting of lecture, group discussion, and a film on the roles of families. (d) Pretest–Posttest Only (49 students).
Murayama et al. 2019 Japan	IGP - Research of Productivity by Intergenerational Sympathy (REPRINTS) program	2004-2015	To ascertain the degree to which intergenerational programs that take root in a community will affect the social capital of all generations in the community	Intergenerational	Psychosocial	Social isolation and lack of social networks among the elderly	The REPRINTS program – an intergenerational program training senior volunteers to work in schools. Participants attended intensive weekly training seminars for three months where they underwent projects involving picture book reading. Thereafter, they began reading picture books in elementary schools, kindergartens, and public childcare centers.

							Volunteers participated once every one to two weeks in groups of about six to ten members.
Alon & Berg-Warman 2014 Israel.	The Israeli Multisystem Model for The Treatment and Prevention of Elder Abuse in the Community	2005-2007	To raise awareness of elder abuse and neglect and to inform the target populations of the existence of support services at the social service department.	Multidisciplinary team intervention	Multiple forms of abuse	Multiple forms of drivers	Three components to the model: (1) Unit dedicated to treatment & prevention of elder abuse; (2) Paraprofessional (e.g. a social work assistant); (3) Multidisciplinary advisory team. Specialized Unit for the Prevention and Treatment of Elder Abuse (SUPTEA) engaged in the following activities: Community work – Seminars and workshops for professionals, and public education meetings for senior citizens. Other types of intervention in model include: *Therapeutic Intervention*: Individual counselling, support group, & supportive services (medical & nursing care, home care, day care center).

							Legal Intervention: Authoritative intervention, police-filed complaints, court order application, legal advice, & guardianship.
Mariam et al. 2015 USA	ECARE-Eliciting Change in At-Risk-Elders: An elder abuse intervention and prevention program	Not clear	To evaluate the effectiveness of a community-based elder abuse intervention program that assists suspected victims of elder abuse and self-neglect through a partnership with local law enforcement.	Social and psychological intervention	Multiple forms of abuse	Elder-related risk factors and abuser-related risk factors	ECARE involved building alliances with the elder and family members, connecting the elder to supportive services that reduce risk of further abuse, and utilizing motivational interviewing-type skills to help elders overcome ambivalence regarding making difficult life changes. ECARE program components evaluated: (a) the development of a working alliance between the elder and outreach specialist, (b) the decrease in risk factors for abuse from beginning to end of the intervention, and (c) the elder's movement along Prochaska and DiClemete's (1983) stages of change regarding the primary focus of intervention. Intervention delivery:

							Limited intervention – such as referral to a support group; 3 hrs and 10 mins of service for over 1 to 6 face-to-face meetings spanning 1 to 3 months (mode 1); Full-Intervention: providing multiple services to meet extensive family needs; an average duration of 15 hrs and 5 min over 3 to 36 meetings across 3 to 18 months (mode = 5).
Richardson 2002,2004 UK	Educational intervention	10months	To compare the effectiveness of attending an educational course (Group 1) to printed educational material (Group 2) in improving management of abuse of older people	Educational intervention	Multiple forms of abuse	organizational level of professional care (Reducing the incidence of abusive care environments)	Intervention group attended an educational course commissioned by the employing NHS trust and local social services department. This educational course lasted for an hour. Those in the control group were given reading material with the same content as the course. The programs targeted identification and management of all types of abuse, and were based on the policy, practice guidance and procedures on responding to abuse and inadequate care of vulnerable adults which was operational in both health and social services.

4.5 Effects of interventions

Appendix 3 provides a summary of the main findings in relation to the effects of the interventions.

4.5.1 Intergenerational programs

Four articles examined the effects of intergenerational programs. In Italy, Santini et al. [51] evaluated an intergenerational program focusing on adolescents and older adults. The overall aim of this program was to create community spaces and activities in which adolescents, older adults living in residential aged care, and active older volunteers could meet and interact with each other. The study involved 25 14-year-old students (18 males and 7 females) and three teachers from a junior secondary school; 16 older residents (mean age: 83) and three social workers of a residential care facility for older people (hosting both a nursing home and a day-care centre); and 16 older volunteers (mean age: 70) from two different volunteers associations. The program components were learning sessions based on manual arts; biographical self-narration; playing games; acting; music and choral activities. The qualitative evaluation of the program showed that the program fostered interaction between adolescents and older adults, helped overcome age-related stereotypes, and improved older people's mental well-being and older volunteers' generativity.

Robson et al. [54] evaluated the effectiveness of an intergenerational arts project called Raising Awareness and Addressing Elder Abuse in the LGBT Community in Canada. This project had two main objectives. The first was to raise awareness of elder abuse as it exists in the LGBT community and to address gaps and silences in the public discourse about this topic. The second objective was to build capacity, agency, and understanding in LGBT youth and older people. In this project, younger people (n=12) and older adults (n=20) created videos and poster/fact sheets to raise awareness of the issue of elder abuse in the LGBT community. The videos and posters produced under the project were displayed in community centres and other public buildings and passed along by email and other forms of social media. Using an art-research design to evaluate the project, the authors showed that the project changed perceptions of LGBT younger and older people regarding elder abuse. It also increased younger and older adults' knowledge and understanding of elder abuse in general – including its types, signs and symptoms, and systemic causes – as well as identifying unique ways it might manifest in the lives of LGBT individuals and be fostered by external and internalised homophobia. While the

impact of the project on the wider community was not formally assessed, the authors acknowledged the possibility of the project raising awareness of elder abuse in the LGBT community as the materials produced under the project reached a wide audience of key stakeholders.

The Research of Productivity by Intergenerational Sympathy (REPRINTS) program [52] in Japan, implemented over a 10-year period, aimed to ascertain the degree to which intergenerational programs that take root in a community will affect the social capital of all generations in the community. This program specifically addressed social isolation and lack of social networks as either drivers of or risk factors for elder abuse. The REPRINTS program focused on training senior volunteers to work in schools. Specifically, participants attended intensive weekly training seminars involving picture book reading for three months. Thereafter, they began reading picture books in elementary schools, kindergartens, and public childcare centers. A population-based, cross-sectional evaluation of the REPRINTS showed that the program had enhanced social capital among middle-aged and older local residents. The programs enhanced social capital in two ways: they benefited children and older people through the interventions themselves, and the community benefited through the presence of a long-term REPRINTS program. It was found that the duration of REPRINTS was a significant community-level indicator of neighbourhood trust, as was recognition of the program. Both increased neighbourhood trust, especially among older and middle-aged people who have stronger neighbourhood ties to the community.

In the USA, Hayslip Jr. [59] evaluated the effect of an elder abuse intergenerational education program focused upon examining the nature of interventions that might best minimise attitudes of tolerance and behavioural intentions of elder abuse among young adults. Participants in this program signed up to attend one of four evening education sessions that corresponded to one of four groups, and were blind to the content of the other interventions and to the design of the study. The intervention groups/components were (a) elder abuse education, (b) ageing education, (c) family education, and a (d) pre/post-test only. The findings showed that the elder abuse education component resulted in less tolerance and intentions for elder abuse among young adults at the immediate post-test, but the impact was not sustained at one-month follow-up. Further, the ageing education component was not more effective than the two control group treatments.

Cumulatively, the positive effects of the four intergenerational programs suggest that these programs hold promise for primary prevention of elder abuse by acting as anti-ageism campaigns, which promote stronger attitudinal and behavioural shifts among the younger generation towards older people. However, apart from Santini et al. [51], a qualitative study judged to be of high quality, the three other studies [52, 54, 59] had serious risk of bias.

4.5.2 Educational/psychological interventions for caregivers

Four articles examined the effects of educational/psychological interventions for caregivers taking care of dementia patients. Of these, two studies used pre-post quasi-experimental design [44, 47], and one each of RCT [23, 48] and controlled before-and-after study [50]. Each of the studies measured knowledge and reported that the interventions resulted in improved knowledge relevant to elder abuse among caregivers. Findings are summarised in Table 3: Summary of main findings.

The Dialectical Behaviour Therapy Skills Training Program (DBT) [44] examined the effect of DBT on high-risk caregivers for elder abuse when caring for a family member with dementia. The cognitive-behavioural DBT is a manualised skills training program developed for individuals with behavioural problems, with the aim to reduce harmful or interfering behaviours and increase adaptive behaviours that improve quality of life [44]. The DBT program was a tailor-made, group-based skill training opportunity for caregivers at risk for elder abuse and was conducted across eight sessions (with each lasting 2.5 hrs). The program was implemented in a community clinic setting and included skills in mindfulness, interpersonal effectiveness, emotional regulation, and distress tolerance. Booster group sessions were provided at the request of caregivers at 12 weeks. The post-intervention evaluation found statistically significant improvements in the measures of caregiver psychosocial functioning, particularly for problem-focused coping strategies ($p < 0.005$), emotional well-being ($p < 0.004$) and energy level ($p < 0.001$) [44]. The program further reduced depression among 40% of the caregivers. During the study, two caregivers were reported to the authorities for elder abuse, but there was no documented reduction of abuse.

The Take AIM against Elder Abuse: The Abuse Intervention Model [47] targeted older adults with dementia (but not living in 24-hour care) at risk for abuse and their primary caregivers. The program focused on dyadic relationships and elder abuse risk factors and addressed care

recipients' aggressive behaviour, resistance to care, and activities of daily living dependency due to dementia and caregivers' anxiety, depression, and burden. The intervention included baseline and follow-up risk assessments, linkages to existing services in the community to address identified needs and risks, and home visits over a three-month period. The post-evaluation of the intervention found that while care recipients' sense of vulnerability and coercion fluctuated over the course of the dyadic intervention, perceived degree of social support remained the same among older adults and carers. The program was reported to be effective in reducing affective symptoms and case-level depression in carers of family members with dementia and improved the carers' quality of life. The risk assessment component of the program was found to have prompted linking the dyads to community-based services to address identified needs such as financial planning and legal advice.

The START intervention [23, 48] was a RCT which randomised caregivers of family members with dementia to receive eight sessions of a manual-based coping strategy delivered over an eight- to 14-week period (n = 173) or usual care (n = 87). The START is a manualised psychological intervention developed to enhance coping skills and to promote the mental health of carers of family members with dementia [23, 48]. The program focused primarily on reducing the factors that influence elder abuse. The key program components were psychoeducation about dementia, carers' stress and where to get emotional support; understanding behaviours of the family member being cared for, and behavioural management techniques including changing unhelpful thoughts; promoting acceptance; assertive communication; relaxation; planning for the future; increasing pleasant activities; and maintaining skills learnt. The START program consisted of eight customised sessions with the caregiver and care recipient in their preferred setting (generally homes) with a therapist and was informed by the United States program Coping With Caregiving program [23, 48].

Two articles evaluated the effects of START, with one focusing on the effectiveness of START at reducing abuse, anxiety, and depression in caregivers [23] and the other [48] using a longitudinal approach to examine whether reductions in depression and anxiety in family caregivers reduces abusive behaviours toward older people with dementia over a 2-year period. Livingston et al. [23], a high-quality study, found that at 8-months, the START intervention significantly reduced depression in carers in the intervention group compared to the control group (adjusted difference in means − 1.80 points; 95% CI= -3.29 − -0.31; P=0.02). Carers in

the intervention group were less likely to have depressive symptoms (OR 0.24, 95% CI=0.07-0.76) and there was a non-significant trend towards reduced anxiety (0.30, 95% CI= 0.08-1.05). START further improved the quality of life of carers in the intervention group (difference in means 4.09, 95% CI= 0.34 - 7.83) but had no effect on the care recipient (difference in means 0.59, 95% CI: −0.72 - 1.89). Carers in the intervention group reported less abusive behaviour towards the recipient of care compared with those in the treatment as usual group (OR 0.47, 95% CI= 0.18 - 1.23).

Cooper et al. [48] evaluated the long-term effects of the START intervention by analysing outcomes relating to abusive behaviours by caregivers using the Multiple Conflict Tactic Scale (MCTS). The authors found that there was no significant difference in abusive behaviour levels in carers in the intervention group compared to those in the control group at eight months (OR 0.48, 95% CI = 0.18 - 1.27) and at 24 months (OR 0.59, 95% CI = 0.27 - 1.28). While this study was of a high quality, the finding raises questions about the potential of the START intervention to translate into less abuse as occurrence was not reported.

The Educational support group intervention [50] was a controlled-before-and-after study, which examined the effectiveness of an educational support group in alleviating caregiver's psychological abusive behaviour, reducing work stress, and promoting knowledge of geriatric care-giving among a group of caregivers. Fifty caregivers from two nursing homes in southern Taiwan attended eight group 90 minutes session over an eight-week period. Caregivers from two other nursing homes served as the control group. The program covered the content of ageing and associated problems related to managing residents' health problems, institutional elder abuse, factors associated with caregivers' abuse behaviour, relaxation and stress management among others. The outcomes measured in this study included the Caregiver Psychological Elder Abuse Behaviour (CPEAB) scale, the Knowledge of Gerontology scale (KGNS) and the Work Stressors Inventory (WSI). The intervention had significant effects in alleviating caregiver psychological abuse behaviour (CPEAB) and increasing care-giving knowledge (KGNS) in the intervention group relative to the control group (F= 4.02, P = 0.048 and 0.018, respectively), but had no measurable effect on work stress (WSI) (p = .66). While the results suggest a significant difference in the alleviation of caregiver psychological abusive behaviour and improvement in knowledge of elder care, the quality of evidence is low as both selection and detection bias were high in this study.

In summary, of the four educational interventions included in the review, only the START program evaluated by Cooper et al. [48] and Livingston et al. [23] was judged to be of high quality. Further, none of the four studies directly examined the association between caregiver knowledge and abusive behaviour and the incidence of elder abuse. It is thus uncertain if educational interventions for caregivers, which improve psychological outcomes, could translate into the reduction of elder abuse.

4.5.3 Educational interventions for health practitioners and other professionals

Two of the included studies investigated the effects of educational interventions for professionals working with older adults. Of these, one each was a RCT [49], and a quasi-experimental study (pre-post design) [45]. The programs targeted professionals from varied backgrounds including nurses, trainee psychiatrists, care assistants, social workers and first responders among others).

The intervention evaluated by Richardson et al. [49] aimed to determine the effectiveness of attending an educational course compared to printed educational material in improving the management of abuse of older people by nurses, care assistants and social workers. The program focused on organisational level professional care (i.e. reducing the incidence of abusive care environments). Program participants were randomised to receive either an educational course (n = 44) or reading material (comparison) (n = 42). The intervention group attended an educational course commissioned by the employing NHS trust and local social services department, which lasted for an hour while those in the control group were given reading material with the same content as the course. Outcomes were measured using a knowledge and management questionnaire based on vignettes of realistic or actual scenarios, given pre- and post-intervention (KAMA - Knowledge and management questionnaire), the Maslach Burnout Inventory (MBI), and the Attitude of Health Care Personnel towards Demented Patients (AHCPDP). At baseline, there was a significant difference between the two groups with the control group having significantly higher mean KAMA scores ($p = 0.0001$). However, post-intervention results showed a significant difference in the final KAMA score with the intervention group improving (M=3.7; SD=8.1), and the control group declining (M= -2.9; SD=10.0). The authors further observed that learning was highly associated with being randomised to intervention group (83.9%) compared to control group (15.2%) (chi square=11.7; P=0.001; OR=7.1 95% CI=2.2 – 23.0). Further, while most staff had a positive attitude towards people with dementia at baseline, this did not predict learning. There were no

statistically significant differences between groups on MBI or DHCPDP. This study was of moderate quality as two of the risk of bias items were judged to be of high risk.

The Elder Investment Fraud and Financial Exploitation (EIFFE) educational program [45] aimed to raise awareness of the risk factors and warning signs of vulnerability to EIFFE among clinicians, clinical support staff, and family. The program was targeted at physicians, nurses, occupational therapists, social workers, and physiotherapists. The outcomes measured to assess the effect of the intervention included self-assessed ratings of the program as well as the implementation of program material into practice 6 months post the intervention. Using descriptive statistics, the authors found a positive effect for the intervention with participants giving a high rating for the program. The findings showed that of the 35 participants completing the post-intervention questionnaire, 69% (n = 24) indicated use of the program materials in practice and also reported having identified 25 patients they felt were vulnerable to EIFFE.

Overall, the level of evidence reported by the two articles focusing on educational interventions for health professionals was weak. Only one of the studies employed a control group [49]. This notwithstanding, the findings suggest that with adequate education and awareness raising, health professionals working in diverse settings can be well equipped and positioned to identify clients vulnerable to abuse with the aim of referring them on appropriately

4.5.4 Multidisciplinary team interventions

Two of the included studies focused on multidisciplinary team interventions [53, 55].

The Israeli Multisystem Model for the Treatment and Prevention of Elder Abuse in the community [53] aimed to raise awareness of elder abuse and neglect and to inform the target populations of the existence of support services at the social service department. This was a service model of community-based interventions implemented in three municipalities in Israel. The program established a Specialized Unit for the Prevention and Treatment of Elder Abuse (SUPTEA), which was overseen by a social worker and paraprofessional with an advisory multi-disciplinary team. The specific aspect of the program considered in this review is the community work component, which entailed seminars and workshops for professionals, and public education meetings for older people to raise awareness about elder abuse. A prospective mixed-methods evaluation of the program showed that this component resulted in increased collaboration among professionals for the prevention of elder abuse. For instance, interviews

with professionals participating in the program revealed that the project had raised their awareness of elder abuse and the problems of tackling it. A Police Officer participant of the program remarked: *"The training programs helped me most. I gained a better understanding of the old people's suffering . . . I wasn't so aware of the problem before. Now, I take action immediately."*

The ECARE program by Mariam et al. [55] evaluated the effectiveness of a community-based psychological and social support intervention program targeted at older people at risk of abuse. The program was delivered primarily to vulnerable elders, and secondly to caregivers to minimise risk of elder abuse and was implemented by a multidisciplinary outreach team (psychologists, mental health specialists and a program coordinator). The program strategy was to mobilise the social and psychological resources of older people, which entailed building alliances with the elder and family members, connecting the older person to supportive services that reduce risk of further abuse, and utilising motivational interviewing-type skills to help older people overcome ambivalence regarding making difficult life changes. The outcome measures used were a problem checklist and Likert-scale tool to assess working alliance and dependency on harmful/inconsistent caregiver, and isolation from social support, as well readiness for change on the stages of change model. The authors reported significant effects ($p < 0.01$) of the ECARE intervention on scores associated with progression on the stages of change model and therapeutic working alliance, as well as a decrease in risk factors for finances/housing and dependency and isolation for older people.

The evidence from both studies is generally weak as none of them had a comparator group and there was also the issue of small sample size (n=55) and rater subjectivity in the case of Mariam et al. [55]. This notwithstanding, the findings suggest that multidisciplinary team interventions may be effective in building working alliances with older people and reducing risk factors for abuse.

4.6 Factors influencing the effectiveness of elder abuse interventions

We examined the implementation processes in delivering both primary and secondary prevention interventions to identify factors that may influence the effectiveness of elder abuse prevention programs. This included an examination of the approaches to implementation and identification of the implementation drivers that have influence upon program administration and outcomes [60]. Evidence on the development and implementation processes of

interventions is fundamental to understanding how and why interventions work or fail to work. Table 2 provides details of the factors influencing the implementation and effectiveness of elder abuse prevention interventions. A challenge encountered when reviewing the implementation processes was that most studies did not provide enough details about the intervention context, and the development and implementation process.

4.6.1 Approaches to implementation

The findings show that a wide range of approaches to implementation were used including collaborative partnership (i.e. collaborative support/partnership, n=7; inter-agency partnership, n=5), person centred-centred care (n=4), co-design (n=3), self-directed/professional-led (n=2) and the use of volunteers (n=1) approaches (See Table 3). As shown in Table 2, some interventions used multiple approaches to implementation.

Collaborative partnership was largely used in implementing elder abuse primary and secondary prevention interventions. Among the interventions using collaborative partnership approach to implementation, five [47, 52-55] focused on partnership across organisations and sectors working together to achieve a common purpose. All other collaborative partnership approaches (n=7) involved either an alliance among professionals (consortia of health professionals), or alliance between health professionals, caregivers, and older people. While this indicates a limited focus on multi-sectoral collaboration in implementing healthy ageing interventions, the findings show that across all interventions, the use of collaborative partnership approaches enriched program implementation and optimised program effects. For instance, Hafford and Nguyen [47] found that grounding their intervention in strong partnerships with Adult Protective Services and community partners contributed to effective intervention planning and/or implementation and optimisation of program effects.

Table 2: Intervention implementation processes

Author (Year) Country	Theoretical framework	Mode of delivery	Implementation processes							Fidelity
			Approaches to implementation						Implementation drivers	
			Self-directed/ professional-led	Inter-agency partnership	Collaborative support/ partnership	Co-design	Use of volunteers	Person centred-centred care		
Drossel et al. 2011 USA	Not stated	Group-based				✓		✓	Booster sessions Program acceptability (use of no stigmatizing language) Tailoring of intervention	Not assessed
Mills et al. 2012	Not stated	Group-based				✓			Active participant involvement in program development	Not assessed
Hafford and Nguyen 2016 USA	Not stated	Individual and group-based		✓	✓			✓	strong partnerships with Adult Protective Services and community partners that assisted with intervention planning and/or implementation service linkage with a range of community service providers Continuity in staffing and leadership was critical in providing consistency in implementation and maintaining relationships project staff and elders care recipient and caregiver dyads were given greater voice and choice in service selection, with	High fidelity

									USC then facilitating the referral linkage.	
Livingston et al. 2013 UK	Not stated	Individual			✓				Therapists working collaboratively with carers rather than giving solutions or advice	High fidelity
Cooper et al. (2016)	Not stated	Individual			✓				Same as Livingston et al. 2013	High fidelity
Hsieh 2009 Taiwan	Not stated	Group-based	✓						Group intervention using a multi-component approach Provision of mutual support	Not assessed
Santini et al. 2018 Italy	Not stated					✓	✓		Use of volunteers with mutual-esteem and trusting relationship with the adolescents as mentors of the adolescents	Not assessed
Robson et al. 2018 Canada	Not stated	Group-based		✓	✓	✓			The use of critical arts practices for social change Intergeneration focus	Not assessed
Hayslip Jr. 2015 USA	Theory of Planned Behaviour	Group-based	✓						Booster sessions required to optimise program impacts	Not assessed
Murayama et al. 2019 Japan	Not stated	N/A		✓	✓				collaboration intensive contact between generations and ongoing opportunities for intimate intergenerational engagement	Not assessed
Alon & Berg-	Not stated	Not stated		✓	✓				Intersectoral collaboration Multi-professional approach to program delivery	Not assessed

Warman 2014 Israel.										
Mariam et al. 2015 USA	Stages of change/ transtheoretical model	Individual		✓	✓			✓	Matching interventions with elders' preferences and needs Use of motivation interviewing Alliance-building with participants Long-term commitment of outreach team	Not assessed
Richardson 2002,2004	Not stated	Individual						✓	Tailoring educational courses to staff's baseline knowledge Fear of recrimination, and feelings of loyalty to colleagues	Not assessed

Alon and Berg-Warman's [53] evaluation of the service model of community-based interventions in three municipalities in Israel found that inter-sectorial collaboration approach to elder abuse program development and delivery holds promise for sustained program impacts.

Three of the 12 interventions used some elements of a participatory co-design approach [45, 51, 54]. The use of co-design was thought to have ensured that the interventions suited participants' idiosyncratic situations as well as contributing to empowering participants and giving them a voice in the program decision-making processes [45, 51].

Four of the interventions used a person-centred approach to program planning and implementation [44, 47, 49, 55]. The unique characteristics of interventions using this approach were ensuring active engagement and participation in program planning and/or implementation and factoring the concerns and priorities of participants into the program. The common theme across the interventions focusing on older people [47, 55], caregivers [44], and health professionals [49] working with older adults was that interventions work best by drawing upon the array of resources available to program participants, including their lived experiences and expertise, as well as social care and support.

Two interventions [46, 50] largely designed and led by health professionals showed mixed findings. While one intervention [51] made use of older people as volunteers as intervention participants, the unique contribution of the use of volunteers as an approach to program delivery was unclear.

Overall, the findings indicate that when used successfully, collaborative partnership, co-design, and person-centred approaches to implementation contribute to increased uptake of interventions and optimisation of program impacts. The factors identified to have influence upon the use of collaborative partnership, co-design, and person-centred approaches include participants' motivation to participate, and the skill level of program implementation staff to use such approaches.

4.6.2 Implementation drivers (success in intervention process)

The core themes identified in relation to implementation drivers were the use of behavioural change techniques (motivational interviewing), tailoring of interventions, booster sessions, and a multi-professional team approach to intervention design and delivery.

Generally, implementation of interventions within a group context [44, 45, 47, 50, 54, 59] was found to be particularly useful in increasing participants' (older people, caregivers, young adults and professionals) participation in interventions, which contributed to successful program implementation and achievement of intervention goals. A plausible mechanism for this could be the increased social interaction generated within a group context. Individual based interventions [53, 55] also demonstrated the potential of individual psychological support interventions in mitigating risk factors for elder abuse.

Four interventions [23, 44, 48, 49, 55] showed that tailoring of interventions through the provision of personalised strategies and services increases adherence and/or compliance to interventions. One intervention [44] showed that the use of booster sessions increased program adherence and uptake of interventions. Mariam et al. [55] evaluated an elder abuse intervention and prevention program focused upon eliciting change in older people and found that the use of motivational interviewing-type skills helped participants overcome ambivalence regarding making difficult life changes.

In several interventions [47, 50, 51], it was found that multi-component interventions contributed to the success of implementation, and improved program outcomes.

4.6.3 Intervention fidelity

Only two studies [47, 48] provided information relating to intervention fidelity, which was found to be high. This indicates an overall lack of attention to and reporting of intervention fidelity in elder abuse primary and secondary prevention interventions.

4.6.4 The use of theoretical frameworks

The majority of the interventions (n=10) did not use theoretical frameworks to inform program design and implementation. Of the two interventions using a theoretical framework, one used the stages of change model/trans-theoretical model [55], and the other the theory of planned behaviour [46]. The findings indicate that the use of models/theories enhanced program design and implementation by helping identifying levers of change and best practice methods for behaviour changes [46, 55].

5. Discussion

This review aimed to synthesise evidence on the effects of elder abuse primary and secondary prevention programs, and to identify the factors that influence the effectiveness of these interventions.

5.1 Summary of main findings – effects of interventions

Twelve studies evaluating the effects of elder abuse primary and secondary prevention interventions met the review inclusion criteria, two of which were randomised controlled trials. The review covered four types of elder abuse primary prevention interventions: intergenerational programs; educational/psychological interventions for caregivers; educational interventions for practitioners/professionals; and multidisciplinary team interventions. With the exception of the intergenerational programs which act as primary prevention strategies at the community/societal level, we did not identify any other primary prevention intervention focusing on more upstream/macro action. We also did not find any interventions addressing other drivers of elder abuse listed in the literature including gender inequality or other forms of marginalisation and discrimination, except in the case of one LGBT-focused program.

Intergenerational programs

While none of the previous reviews have included intergenerational programs [61], these provided the largest body of genuine primary prevention programs included in this review. All the intergenerational programs focused on fostering positive intergenerational relationships by addressing ageism as a driver of elder abuse. The evidence from the four intergenerational programs included in this review suggest that intergenerational programs can be effective elder abuse primary prevention strategies by acting as anti-ageism campaigns including overcoming age-related stereotypes in both community and institutional settings. The findings further show that intergenerational programs can reinforce neighbourhood trust among local residents, thereby strengthening a community's intergenerational ties, building social capital and sustainable community, which can in turn prevent or reduce social isolation among older people, a known risk factor for elder abuse. These findings align with the extant literature that suggests that intergenerational programs are critical primary prevention interventions for the prevention of elder abuse [15, 26, 38]. Of note however, is that the quality of evidence of the

effects of intergenerational programs is generally weak, as none of the included studies had a comparator group.

Caregiver interventions

Similar to the findings of previous reviews [31, 62], the evidence from three caregiver interventions included in the review suggests that these interventions are a promising approach to the secondary prevention of elder abuse. While the quality of evidence is weak, care interventions included in the review were found to have had significant effects on increasing knowledge on ageing, and alleviating caregivers' psychologically abusive behaviour as well as promoting healthier relationships between caregivers and older people [31, 50, 63].

Educational interventions for practitioners/professionals

The findings from two educational interventions for professionals suggest that with adequate education and awareness raising, health professionals working in diverse settings can be well equipped and positioned to identify clients vulnerable to financial elder abuse. This means that at the organisational level of professional care, prevention strategies such as awareness raising, and training programs have the potential to change the care environment and thus contribute to reducing elder abuse [64]. This finding is contrary to that of previous reviews which noted the uncertainty regarding the effectiveness of elder abuse educational interventions for practitioners [61].

Multidisciplinary team interventions

While low-quality evidence was found for multidisciplinary team interventions, the findings from the two included studies suggest that multidisciplinary team interventions (i.e. interagency coordinating mechanisms) may be effective in building working alliances with older people and in turn reducing risk factors for abuse. This is in line with the literature which suggests that effective prevention of elder abuse requires collaboration across sectors as well as a coordinated effort [63].

5.2 Factors influencing the effectiveness/implementation of interventions

The secondary aim of this review was to identify the factors that influence the implementation of evidence-based elder abuse primary and secondary prevention interventions. The nature of interventions, approaches to implementation, and implementation drivers were examined alongside intervention effectiveness. While implementation approaches varied, strong

evidence was found for the significant role of partnership across organisations, collaborative partnership (alliance among professionals, and alliance between health professionals, and older people and caregivers), co-design, and person-centred approaches in optimising programs' impacts. In relation to the drivers of change that explain how and why interventions worked or failed to work, the most compelling evidence was for social interactions (largely in group-based interventions), multi-component interventions, tailoring of interventions, motivational interviewing, booster sessions, and multi-professional team approach to program design and delivery. In conjunction with the use of participatory approaches, the operation of these drivers of change played a key role in increasing program uptake and improving program effectiveness. These findings align with the extant literature on implementation science. For instance, a review by Roussos and Fawcett [65] concluded that collaborative partnership approaches are a promising strategy for engaging people and organizations around a common goal in implementing health promotion interventions at the community level.

With regard to co-design, there is evidence to support the effectiveness of this approach in the development of health promotion interventions that bring together health professionals and patients to design common solutions [66]. Co-design interventions also lead to sustainable implementation and outcomes [67]. A recent study by Gahan et al. [68] which described the use of a co-design approach to develop the Australian elder abuse screening instrument with frontline professionals showed that co-design approaches are effective in developing inter-professional and community-based solutions to the challenge of elder abuse. The OPERA intervention in Australia [43] which was awaiting assessment also used a co-design approach to intervention development. The evaluation of the co-design methodology showed that community co-design is a successful methodology for development of primary prevention interventions at the local level [43].

5.3 Gaps in the evidence

This systematic review conducted as part of a larger study focusing on primary prevention of elder abuse focused on synthesising the evidence on elder abuse primary and secondary prevention interventions, as well as the identification of the implementation factors that influence intervention effectiveness. From the evidence reviewed, it is evident that a number of gaps exit in the literature of elder abuse primary prevention specifically.

Limited focus of interventions on macro/structural drivers of elder abuse

This review identified only four interventions (all intergenerational programs) targeted at ageism as a driver of elder abuse. While caregiver interventions and educational programs for professionals are critical secondary prevention interventions [63], it has been observed that macro level primary prevention interventions such as policies fostering positive attitude to ageing, challenging stereotypes, changing community norms and attitudes towards older people, and interventions addressing gender inequality are fundamental for preventing elder abuse [38]. This means that attention should be paid to the design, implementation and evaluation of macro-level elder abuse primary strategies. Implementation of such universal interventions that target the whole population hold more promise in preventing the onset of elder abuse compared to secondary (often organisational and individual-level) interventions, which featured prominently in this review [1]. Further, interventions addressing elder abuse drivers such as gender inequality, other forms of discrimination and capitalism/neoliberalism should be explored in the= designing of primary prevention elder abuse programs.

Limited elder abuse outcome measures

While intermediate outcome measures such as increased knowledge and awareness of elder abuse, positive caregiver behaviour and improved caregiver psychological health are key measures for the prevention of elder abuse, there is the need to establish the extent to which these measures result in long-term outcome measures including the prevention and/or reduction in the incidence of elder abuse. For instance, none of the caregiver psycho-educational interventions included in the review assessed the direct impact of the interventions on elder abuse. It is thus uncertain if educational interventions for caregivers, which improve psychological outcomes (and thus have the capacity to alleviate risk factors for perpetrators), could translate into the avoidance or a reduction of elder abuse. It is widely acknowledged that while community-based interventions such as awareness campaigns may contribute to increased awareness of elder abuse, and encourage respectful and dignified treatment of older people, the long-term impact of such awareness campaigns is yet to be established [38, 61]. There is also a limited focus on empowerment outcomes in terms of assessing the extent to which interventions equip older people to develop coping strategies and resilience to potential abusive behaviours.

Lack of quality evaluations and limited use of theoretical frameworks

In relation to quantitative evaluations, this review identified only two RCTs (level II) and one quasi-experimental study (level III-2) with a control group study out of a total of 12 identified

studies for inclusion. The paucity of rigorous evaluation designs poses a challenge to determining the effectiveness of programs and this challenge is clearly present in the field of elder abuse primary and secondary prevention evaluations. The majority of the included studies used a pre-post study design and had small numbers of participants. While this review included both quantitative and qualitative studies, only one high quality qualitative study, and one moderate quality mixed-methods study were included in the review. This points to the extremely limited use and application of rigorous qualitative evaluation design in evaluating elder abuse primary and secondary prevention interventions. It has been widely acknowledged that qualitative studies can provide evidence on program effectiveness, clarify the range and nature of program impacts/ outcomes that cannot be readily measured quantitatively, and which groups experience these impacts [69, 70]. Qualitative evaluations can also help understand the effectiveness of interventions by unpacking how and why interventions work or fail to work [71-73]. Well-designed mixed methods studies that examine a range of outcomes and capture both quantitative and qualitative data are also required to better understand the effects of elder abuse primary and secondary prevention interventions.

Related to the quality of evaluation also is limited use and application of theoretical frameworks in the design and evaluation of primary prevention interventions. It has been acknowledged that the use of theoretical frameworks contributes to better program design, implementation and evaluation by helping to understand determinants of change, identification of program levers of change, and best practice methods for measuring program impacts [15, 31, 74, 75].

Limited description of interventions

In many studies, there was limited description of the intervention undertaken (e.g. intervention context, intervention development processes, and governance arrangements) and the implementation processes. Further, cultural adaptations of evidence-based mainstream programs were insufficiently detailed, making it difficult to replicate or adapt the interventions for another context. The effectiveness or otherwise of elder abuse interventions is in part contingent on the design and implementation processes of the interventions. As published articles are often constrained by word length limitations and this may restrict details on the implementation process, both the Consolidated Standards of Reporting Trials (CONSORT) [76] and the Transparent Reporting of Evaluations with Nonrandomized Designs (TREND) [77] recommend reporting some details about the intervention and implementation process. It

is thus important for elder abuse primary and secondary prevention studies to document the approach and process to intervention implementation and the drivers of implementation that influence intervention effectiveness.

5.4 Strengths and limitations

The strength of this systematic review lies in it being the first to comprehensively review the literature on primary prevention of elder abuse (including some secondary prevention studies), focusing on both the effectiveness of interventions and the identification of the factors that influence program implementation and impacts.

The main limitation of the review relates to the lack of available studies of primary prevention programs for elder abuse, leading to the necessity to include some early intervention or secondary prevention studies. This meant that we necessarily considered intervention impacts in terms of risk factors as well as drivers, and that some of the factors found to affect the successful implementation of secondary prevention interventions may not be entirely generalisable to primary prevention. However, in the absence of a suitable number of studies on primary prevention programs, these insights were considered worth capturing and documenting to guide best practice implementation.

Another limitation in assessing the impacts of both the primary and secondary prevention studies captured was the low quality of evidence due to methodological limitations (e.g., no control group) which affects generalisability and conclusiveness. However, this is not unique to this review, as past elder abuse systematic reviews [31, 32, 61] have raised similar concerns suggesting that quality evidence from elder abuse prevention and secondary intervention studies is generally lacking.

Further, despite the significant efforts made in identifying complementary studies that might have accompanied the intervention studies included in this review to tease out missing information on intervention characteristics and implementation processes, there were still difficulties in getting enough information on the implementation processes of some of the intervention studies included in this review. We therefore acknowledge the possibility of missing other important implementation drivers that explain the workings of the elder abuse primary and secondary prevention interventions included in this review. Further, while most of the interventions were multimodal, it was often not clear which intervention component was

more effective, and the factors accounting for this. These limitations of the included studies call for the need to comprehensively document the implementation processes in future implementation of elder abuse primary prevention interventions.

5.6 Conclusion

This review has shown that there is limited high-quality evidence regarding the implementation, evaluation and effectiveness of primary prevention interventions for alder abuse. The review has identified four primary or secondary prevention strategies which appear to have the potential for targeting the drivers and risk factors of elder abuse:

- Intergenerational programs
- Caregiver psycho-educational programs
- Educational programs for professionals, and
- Multi-sectorial/disciplinary team interventions

The review has also shown that the effectiveness of elder abuse interventions is contingent on a number of factors including the type of implementation approaches used, and the specific mechanisms that may be at play during the implementation process. The gaps in evidence identified in this review provide further direction to policy makers, researchers and evaluators regarding the development, adaptation, implementation and evaluation of elder abuse primary and secondary prevention interventions. Of importance to both elder abuse policy and practice is the need to pay attention to the development, implementation and evaluation of macro level primary prevention interventions such as programs fostering positive attitudes to ageing, challenging systemic forms of discrimination and marginalisation such as gender inequality, all of which are fundamental for preventing the onset of elder abuse.

References

1. Ageing, W.H.O., L.C. Unit, and U.d.G.C.i.d. gérontologie, *A global response to elder abuse and neglect: building primary health care capacity to deal with the problem worldwide: main report*. 2008: World Health Organization.
2. Levine, J.M., *Elder neglect and abuse. A primer for primary care physicians.* Geriatrics, 2003. **58**(10): p. 37.
3. Yon, Y., et al., *The prevalence of elder abuse in institutional settings: a systematic review and meta-analysis.* Eur J Public Health, 2019. **29**(1): p. 58-67.
4. Dong, X.e. and SpringerLink, *Elder abuse : research, practice and policy*. 2017: Cham, Switzerland : Springer Science and Business Media : Springer.
5. Gorbien, M.J. and A.R. Eisenstein, *Elder abuse and neglect: an overview.* Clinics in geriatric medicine, 2005. **21**(2): p. 279-292.
6. Kurrle, S. and G. Naughtin, *An overview of elder abuse and neglect in Australia.* Journal Of Elder Abuse & Neglect, 2008. **20**(2): p. 108-125.
7. Yon, Y., et al., *Elder abuse prevalence in community settings: a systematic review and meta-analysis.* The Lancet Global Health, 2017. **5**(2): p. e147-e156.
8. Kaspiew, R., R. Carson, and H. Rhoades, *Elder abuse: Understanding issues, frameworks and responses*. 2016, Australian Institute of Family Studies: Melbourne. p. 54.
9. Joosten, M., B. Dow, and J. Blakey, *Profile of elder abuse in Victoria: Analysis of data about people seeking help from Seniors Rights Victoria*. 2015, National Ageing Research Institute and Seniors Rights Victoria: Melbourne. p. 50.
10. Wainer, J., et al., *Diversity and financial elder abuse in Victoria: Protecting elder's assets study*. 2011, Monash University, Eastern Health Clinical School: Melbourne.
11. Zannettino, L., et al., *The Role of Emotional Vulnerability and Abuse in the Financial Exploitation of Older People From Culturally and Linguistically Diverse Communities in Australia.* Journal Of Elder Abuse & Neglect, 2015. **27**(1): p. 74-89.
12. Brijnath, B., et al., *"Build Rapport, Otherwise No Screening Tools in the World Are Going to Help": Frontline Service Providers' Views on Current Screening Tools for Elder Abuse.* The Gerontologist, 2018. Advanced Access publication December 20, 2018.
13. Dow, B. and B. Brijnath, *Elder abuse: context, concepts and challenges*, in *Australia's welfare in brief 2019*, A.I.o.H.a. Welfare, Editor. 2019, AIHW: Canberra. p. 143-161.
14. Dow, B. and M. Joosten, *Understanding elder abuse: a social rights perspective.* International psychogeriatrics, 2012. **24**(6): p. 853.
15. Joosten, M., F. Vrantsidis, and B. Dow, *Understanding elder abuse: A scoping study*. 2017: Melbourne Social Equity Institute.
16. Victoria, R., *Respect Victoria Strategic Plan 2019-2022*. 2019. p. 1-56.
17. Watch, O. and VicHealth, *Change the story: A shared framework for the primary prevention of violence against women and their children in Australia*. 2015: Melbourne, Australia. p. 1-75.
18. Victoria, S.R. and T. Impact, *Older, Better, Together: The primary prevention of elder abuse by prevention networks*. 2019: Melbourne, Australia. p. 1-74.
19. Lord, M., K. McMahon, and S. Nivelle, *Preventing elder abuse: A literature review for the Southern Metropolitan Primary Care Partnership Elder Abuse Prevention Network*. 2019: Melbourne, Australia. p. 1-33.
20. Centre, E.C.L., *Older People: Equity, Respect & Ageing: Phase 1 Findings*. 2019: Melbourne, Australia. p. 1-51.
21. Victoria, S.o., *Royal Commission into Family Violence: Summary and recommendations*. 2016. p. 2082.
22. Campbell Reay, A.M. and K.D. Browne, *The effectiveness of psychological interventions with individuals who physically abuse or neglect their elderly dependents.* Journal of interpersonal violence, 2002. **17**(4): p. 416-431.

23. Livingston, G., et al., *Clinical effectiveness of a manual based coping strategy programme (START, STrAtegies for RelaTives) in promoting the mental health of carers of family members with dementia: pragmatic randomised controlled trial.* Bmj, 2013. **347**: p. f6276.
24. Heck, L.L. and L.G. Gillespie, *Interprofessional Program to Provide Emergency Sheltering to Abused Elders.* Advanced Emergency Nursing Journal, 2013. **35**(2): p. 170-181.
25. Reingold, D.A., *An Elder Abuse Shelter Program: Build It and They Will Come, A Long Term Care Based Program to Address Elder Abuse in the Community.* Journal of Gerontological Social Work, 2006. **46**(3-4): p. 123-135.
26. Organization, W.H., *European report on preventing elder maltreatment.* 2011.
27. Van Bavel, M., et al., *Abuse in Europe: background and position paper.* Utrecht, Germany: The European Reference Framework Online for the Prevention of Elder Abuse and Neglect, 2010.
28. Nerenberg, L., *Daily money management programs: A protection against elder abuse*. 2003: National Center on Elder Abuse.
29. Sacks, D., et al., *The Value of Daily Money Management: An Analysis of Outcomes and Costs.* Journal of Evidence-Based Social Work, 2012. **9**(5): p. 498-511.
30. Ayalon, L., et al., *A systematic review and meta-analysis of interventions designed to prevent or stop elder maltreatment.* Age and Ageing, 2016. **45**(2): p. 216-227.
31. Fearing, G., et al., *A systematic review on community-based interventions for elder abuse and neglect.* Journal of elder abuse & neglect, 2017. **29**(2-3): p. 102-133.
32. Ploeg, J., et al., *A systematic review of interventions for elder abuse.* Journal of Elder Abuse & Neglect, 2009. **21**(3): p. 187-210.
33. Baker, P.R.A., et al., *Interventions for preventing abuse in the elderly.* The Cochrane database of systematic reviews, 2016. **2016**(8): p. CD010321.
34. Moore, G.F., et al., *Process evaluation of complex interventions: Medical Research Council guidance.* bmj, 2015. **350**: p. h1258.
35. Moher, D., et al., *Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement.* Annals of internal medicine, 2009. **151**(4): p. 264-269.
36. Higgins, J., Thomas, J., Chandler, J., Cumpston, M., Li, T., Page, MJ., Welch, VA. (editors), *Cochrane Handbook for Systematic Reviews of Interventions. 2nd Edition*. 2019, Chichester (UK): John Wiley & Sons.
37. Dow, B., E. Gaffy, and K. Hwang, *Elder abuse community action plan for Victoria*. 2018: National Ageing Research Institute.
38. De Donder, L., P. Donnelly, and C. Ward, *Evidence-informed programmes to reduce violence: preventing elder abuse*. 2014: Oxford University Press Oxford UK.
39. Sterne, J.A., et al., *ROBINS-I: a tool for assessing risk of bias in non-randomised studies of interventions.* bmj, 2016. **355**: p. i4919.
40. Pluye, P., et al., *Proposal: A mixed methods appraisal tool for systematic mixed studies reviews.* Montréal: McGill University, 2011. **2**: p. 1-8.
41. Institute, J.B., *Joanna Briggs Institute reviewers' manual: 2014 edition.* Australia: The Joanna Briggs Institute, 2014.
42. Popay, J., et al., *Guidance on the conduct of narrative synthesis in systematic reviews.* A product from the ESRC methods programme Version, 2006. **1**: p. b92.
43. Bossio, D., et al., *Community co-design of digital interventions for primary prevention of ageism and elder abuse.*
44. Drossel, C., J.E. Fisher, and V. Mercer, *A DBT skills training group for family caregivers of persons with dementia.* Behavior therapy, 2011. **42**(1): p. 109-119.
45. Mills, W.L., et al., *An educational program to assist clinicians in identifying elder investment fraud and financial exploitation.* Gerontology & geriatrics education, 2012. **33**(4): p. 351-363.
46. Hayslip, B., Jr., J. Reinberg, and J. Williams, *The impact of elder abuse education on young adults.* Journal of Elder Abuse & Neglect, 2015. **27**(3): p. 233-53.

47. Hafford, C.N., Kim, *An Evaluation of AOA's Program to Prevent Elder Abuse: Final Report.* . 2016.
48. Cooper, C., et al., *Effectiveness of START psychological intervention in reducing abuse by dementia family carers: randomized controlled trial.* International Psychogeriatrics, 2016. **28**(6): p. 881-7.
49. Richardson, B., G. Kitchen, and G. Livingston, *The effect of education on knowledge and management of elder abuse: a randomized controlled trial.* Age & Ageing, 2002. **31**(5): p. 335-41.
50. Hsieh, H.-F., et al., *Educational support group in changing caregivers' psychological elder abuse behavior toward caring for institutionalized elders.* Advances in health sciences education, 2009. **14**(3): p. 377-386.
51. Santini, S., et al., *Intergenerational Programs Involving Adolescents, Institutionalized Elderly, and Older Volunteers: Results from a Pilot Research-Action in Italy.* BioMed research international, 2018. **2018**.
52. Murayama, Y., et al., *The impact of intergenerational programs on social capital in Japan: a randomized population-based cross-sectional study.* BMC public health, 2019. **19**(1): p. 156.
53. Alon, S. and A. Berg-Warman, *Treatment and Prevention of Elder Abuse and Neglect: Where Knowledge and Practice Meet—A Model for Intervention to Prevent and Treat Elder Abuse in Israel.* Journal of Elder Abuse and Neglect, 2014. **26**(2): p. 150-171.
54. Robson, C., et al., *Raising Awareness and Addressing Elder Abuse in the LGBT Community: An Intergenerational Arts Project.* Language and Literacy, 2018. **20**(3): p. 46-66.
55. Mariam, L.M., et al., *Eliciting change in at-risk elders (ECARE): evaluation of an elder abuse intervention program.* Journal of Elder Abuse & Neglect, 2015. **27**(1): p. 19-33.
56. Cooper, C., et al., *Effectiveness of START psychological intervention in reducing abuse by dementia family carers: randomized controlled trial.* International Psychogeriatrics, 2016. **28**(6): p. 881-887.
57. Alon, S. and A. Berg-Warman, *Treatment and Prevention of Elder Abuse and Neglect: Where Knowledge and Practice Meet-A Model for Intervention to Prevent and Treat Elder Abuse in Israel.* Journal of Elder Abuse & Neglect, 2014. **26**(2): p. 150-171.
58. Alon, S. and A. Berg-Warman, *Treatment and Prevention of Elder Abuse and Neglect: Where Knowledge and Practice Meet—A Model for Intervention to Prevent and Treat Elder Abuse in Israel.* Journal of Elder Abuse & Neglect, 2014. **26**(2): p. 150-171.
59. Hayslip Jr, B., J. Reinberg, and J. Williams, *The impact of elder abuse education on young adults.* Journal of elder abuse & neglect, 2015. **27**(3): p. 233-253.
60. Meyers, D.C., J.A. Durlak, and A. Wandersman, *The quality implementation framework: a synthesis of critical steps in the implementation process.* American journal of community psychology, 2012. **50**(3-4): p. 462-480.
61. Baker, P.R., et al., *Interventions for preventing abuse in the elderly.* Cochrane Database of Systematic Reviews, 2016(8).
62. Moore, C. and C. Browne, *Emerging innovations, best practices, and evidence-based practices in elder abuse and neglect: a review of recent developments in the field.* Journal of family violence, 2017. **32**(4): p. 383-397.
63. Pillemer, K., et al., *Elder Mistreatment: Priorities for Consideration by the White House Conference on Aging.* Gerontologist, 2015. **55**(2): p. 320-327.
64. Bond, C., *Education and a multi-agency approach are key to addressing elder abuse.* Professional nurse (London, England), 2004. **20**(4): p. 39-41.
65. Roussos, S.T. and S.B. Fawcett, *A review of collaborative partnerships as a strategy for improving community health.* Annual review of public health, 2000. **21**(1): p. 369-402.
66. Jessup, R.L., et al., *Using co-design to develop interventions to address health literacy needs in a hospitalised population.* BMC health services research, 2018. **18**(1): p. 989.

67. Sanders, E.B.-N. and P.J. Stappers, *Co-creation and the new landscapes of design.* Co-design, 2008. **4**(1): p. 5-18.
68. Gahan, L., et al., *Advancing methodologies to increase end-user engagement with complex interventions: The case of co-designing the Australian elder abuse screening instrument (AuSI).* Journal of elder abuse & neglect, 2019. **31**(4-5): p. 325-339.
69. Petticrew, M., *Time to rethink the systematic review catechism? Moving from 'what works' to 'what happens'.* Systematic reviews, 2015. **4**(1): p. 36.
70. Owusu-Addo, E., S.E. Edusah, and P. Sarfo-Mensah, *The utility of stakeholder involvement in the evaluation of community-based health promotion programmes.* International Journal of Health Promotion and Education, 2015. **53**(6): p. 291-302.
71. Springett, J., *Appropriate approaches to the evaluation of health promotion.* Critical Public Health, 2001. **11**(2): p. 139-151.
72. Maxwell, J.A., *Causal explanation, qualitative research, and scientific inquiry in education.* Educational researcher, 2004. **33**(2): p. 3-11.
73. Patton, M.Q.a., *Qualitative research & evaluation methods : integrating theory and practice*. Fourth edition. ed. 2015: Los Angeles SAGE.
74. Schiamberg, L.B. and D. Gans, *An ecological framework for contextual risk factors in elder abuse by adult children.* Journal of Elder Abuse & Neglect, 1999. **11**(1): p. 79-103.
75. Teresi, J.A., et al., *State of the science on prevention of elder abuse and lessons learned from child abuse and domestic violence prevention: Toward a conceptual framework for research.* Journal of elder abuse & neglect, 2016. **28**(4-5): p. 263-300.
76. Moher, D., et al., *The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomized trials.* Jama, 2001. **285**(15): p. 1987-1991.
77. Des Jarlais, D.C., et al., *Improving the reporting quality of nonrandomized evaluations of behavioral and public health interventions: the TREND statement.* American journal of public health, 2004. **94**(3): p. 361-366.

Appendixes

Appendix 1: Study quality assessment

Summary quality assessment of RCTs (Cochrane Risk of Bias Tool)

Study reference	Random sequence generation	Allocation concealment	Blinding of participants & personnel	Blinding of outcome assessment	Incomplete outcome data	Selective reporting	Other bias	Overall assessment
Livingston et al.	+	+	+	+	?	+	+	+
Cooper et al. 2016	+	+	+	+	+	+	+	+
Richardson et al. 2002	+	+	x	+	+	+	+	x

Key: *+, low-risk of bias; X, high-risk of bias; ?, unclear-risk of bias*

Summary quality assessment of non-randomised trials (Risk of Bias in Non-Randomised Studies-of Interventions)

Study reference	Confounding	Selection of participants	Classification of interventions	Deviations from intended interventions	Missing data	Measurement outcomes	Selection of reported results	Overall assessment
Drossel et al. 2011	x	x	+	NI	+	x	+	x
Hsieh 2009	-	X	+	NI	+	x	+	x
Hayslip Jr. 2015	+	x	+	NI	+	x	+	x
Murayama et al. 2019	x	x	+	NI	+	x	+	x
Mariam et al. 2015	-	x	+	NI	?	x	x	x

Key: *+, low-risk of bias; -, moderate-risk of bias; X, serious-risk of bias; NI, no information provided*

Summary quality assessment of mixed methods studies (Mixed Methods Appraisal Tool)

Study reference	Sources of data appropriate	Data analysis appropriate	Considered context	Researcher influence	Sampling appropriate	Sample representative	Measures appropriate	Response rate (≥60%)	Relevant design	Integration appropriate	Limitations considered	Overall assessment
Hafford and Nguyen 2016	Y	Y	Y	N	Y	?	?	?	Y	N	Y	Moderate
Alon & Berg-Warman 2014	Y	Y	N	N	Y	N	?	?	Y	N	Y	High

Key: *Y, Yes; N, No; ?, can't tell*

Summary quality assessment of qualitative studies (Joanna Briggs Institute's Tool for Qualitative Studies)

Study reference	Philosophical and methodological	Appropriate methodology	Appropriate methods of data collection	Appropriate analysis	Appropriate sampling	Link to theory	Reflexivity	Thick description	Ethical consideration	Congruence between conclusions and findings	Overall assessment
Santini et al. 2018	?	+	+	+	+	?	+	+	+	+	+

Key: +, low; -, High; ?, unclear

Appendix 2: Summary of main characteristics of included studies

Author (Year) Country	Methods				Study participants			
	Design	Sampling methods	Data collection method	Inclusion criteria	Setting	Participants	Sample size	Participating population characteristics (e.g. age, sex,)
Drossel et al. 2011 USA	Pre–post experimental design	Caregivers were referred to DBT Skills by their individual therapists	Measures (questionnaires) used in the community clinic's routine program evaluation (e.g. CES-D, SF-36 & ways of copping checklist)	Caregivers of older adults with dementia meeting at least one risk factor for elder abuse or neglect	Routine clinical setting offering services to individuals with dementia	Caregivers of older adults with dementia	24	79% female, 21% male; aged 38–87 years.
Mills et al. 2012 USA	Pre-post design	Administration of a post-program evaluation took place immediately following completion of the education program;	Completion of self-administered questionnaire	Not clear	Geographically diverse locations across Texas	clinicians comprising practicing primary care providers, Social workers and nurses with specializations in geriatrics, psychologists, psychiatrists, and neurologists	127	Not stated

Hafford and Nguyen 2016 USA	Pre-post design	Rolling enrolment of participants (76 dyads) Administration of the VASS screening tool	mixed-methods	Dyads: Caregivers and older adults with dementia	Primary care setting	Older adults with dementia aged 65 at risk for abuse, and their primary caregivers	76 dyads	Care recipients: Mean age: 80.8 55% male; 45% female; 91% Caucasian, 7.5% Asian/Pacific Islander, and 1.5% African American.
Livingston et al. 2013 UK	RCT	One hundred and seventy-three caregivers were randomized to the START condition and 87 were assigned to treatment as usual (TAU), which consisted of standard practices of dementia care and carer support	Both groups were followed up at 4 months and 8 months post-START and TAU	Carers of family members with dementia not living in 24-hour care.	Three mental health community services and one neurological outpatient dementia service in London and Essex, UK.	Carers of family members with dementia	260 I: 173 C: 87	START (Treatment): N = 173 (33% male; 67% female; age 62.0 ± 14.6). TAU N = 87 (29% male; 71% female; age 56.1 ± 12.3).
Cooper et al., 2016 UK	RCT	Same as Livingston et al., 2013	Both groups were followed up at 12 and 24 months post-START and TAU	Same as Livingston et al., 2013	Same as Livingston et al., 2013	Same as Livingston et al., 2013	Same as Livingston et al., 2013	START: N = 173 caregivers (33% male; 57% female; age 62.0 ±14.6 years); N = 173 patients (41% male; 59% female; age 79.9±8.3 years). TAU: N = 87 caregivers (28.7% male; 71.3% female; age 56.1

								±12.3 years);
Hsieh 2009 Taiwan	quasi-experimental design: controlled before-and-after study	Facility control sampling	Data collected from self-administered questionnaire. Participants recruited from four officially registered nursing homes located in southern Taiwan	Caregivers who had a Caregiver Psychological Elder Abuse Behavior Scale (CPEAB) score greater than 20; were employed; were at least 20 years of age; were Taiwanese citizens; and had not participated in a similar group activity.	Nursing homes in southern Taiwan	Caregivers	112	97% females; age 42.9±9.5 years);
Santini et al. 2018 Italy	Qualitative action research	Purposive sampling	Interviews and focus groups	Users of residential and day-care services adolescents and older adult volunteers	Institutionalised care setting	25 14-year-old students; older adults and social workers	25 adolescents 16 older persons 16 older adult volunteers 3 teachers and 3 social workers	Mean Age: Adolescents 14 older persons 83 older adult volunteers 70
Robson et al. 2018	Arts-based research design	Purposive sampling	Surveys Case studies/stories	Older adults identified as LGBT and/or queer, and youth willing to	Community setting	Older adults identified as LGBT and/or queer, and youth	Older adults 20	Older adults: 60 and 84 years of age Youth: 13 to 24 yrs of age

Canada				participant in the project			Youth 12	
Hayslip Jr. 2015 USA	Pre–post experimental design with comparison group	Participants signed up to attend one of four evening sessions that corresponded to one of four groups and were blind to the content of the other interventions and to the design of the study.	Questionnaire administration	Young adults	Community setting	Young adults	218	68% female, 32% male)
Murayama et al. 2019 Japan	Population-based cross-sectional study	Residents between the ages of 20 and 84 years randomly selected from the basic resident register	Questionnaire administration	participants were recruited through community newspapers, newsletters, and events advertising the program.	Community setting	Volunteers over the age of 60	978	mean age 49.5 (range: 20–83). 47% males; 53% females
Alon & Berg-Warman 2014 Israel.	Mixed-method prospective evaluation	Purposive sampling	Interviews	professional associates from various services for older adults	Community setting	Service providers included professional personnel from banks, hospitals, health clinics, and homecare agencies, as well as police officers, legal advisers, and volunteers	19 social workers & professionals working with older adults & families.	N/A to study respondents but 85% victims were women and three-quarters of perpetrators were men.

Mariam et al. 2015 USA	pre–post experimental design	Referrals of suspected elder and dependent adult abuse from local law enforcement	Questionnaire administration	Suspected elder and dependent adult abuse referred from local law enforcement aged over 55, and elders speaking a language known to outreach staff	Community setting	Older people and caregivers	55 47 vulnerable elders 7 care givers	32.6% male; 67.40% female Mean age 79.59 years Ethnicity: African American (18.86%), Asian (8.57%), Caucasian (34.29%), Hispanic (16.00%), and Middle Eastern/North African (2.86%).
Richardson 2002	RCT	Individuals were randomly assigned using computed-generated numbers to either intervention or control group.	Self-report questionnaire pre- and post-interventions	Eligible participants were all those employed by the local community health trust/social services who worked with older people and who had not yet attended a course on managing abuse of older people.	Nursing homes	Health personnel working with older people comprising nursing staff, care assistants, care managers and social workers	86	22.6% male and 77.4% female in intervention group and 18.2% male and 81.8% female in control group. Both groups mainly consisted of care assistants; (I - 61.3%; C - 45.5%).

Appendix 3: Summary of main findings of interventions

Author (Year) Country	Outcome measures	Results	Comments
Drossel et al. 2011 USA	Center for Epidemiological Studies Depression Scale (CES-D) Caregiver Burden Inventory (CBI) Medical Outcome Studies Short-Form 36-Item Health Survey (SF-36) Ways of Coping Checklist (Revised) (WoC-R,) Maslach Burnout Inventory (MBI	After the intervention: 6 participants ↓CES-D at least 6 points; 5 participants ↓ 5 points or less & 2 participants stayed the same. Problem focused coping↑; social support & avoidant coping remained unchanged. Improvements in emotional well-being; energy/ fatigue; social functioning; emotional problems.	During the study, individual therapists reported 2 of the 16 caregivers to the authorities for elder neglect. It is however, unclear if this was associated with the intervention. Follow-up data from the booster groups suggest that to maintain treatment gains, high-risk caregivers may require continuing support.
Mills et al. 2012 USA	Clinician behaviour in identifying and handling EIFFE	Participants gave high ratings for the program; At 6-month follow-up, 35 respondents returned a completed questionnaire, with 69% (n = 24) indicating use of the program materials in practice and also reporting having identified 25 patients they felt were vulnerable to EIFFE.	evidence-based outcomes of the educational program, including implementation of the materials in practice and changes in clinician behaviour in identifying and handling suspected cases of EIFFE were not assessed
Hafford and Nguyen 2016 USA	Identification of high-risk of abuse at early stages Enhanced caregiver coping skills and confidence Reduced behavioural manifestations (agitation) Increased knowledge of disease process Increased access to social resources	Perceived degree of social support remained constant among older adults	A manual based coping strategy was effective in reducing affective symptoms and depressive symptoms in carers of family members with dementia. The carers' quality of life also improved
Livingston et al. 2013	Affective symptoms (hospital anxiety and depression total score);	Baseline MCTS: - START: 2.5 (2.9); 49% have MCTS ≥2 for at least 1 item. - TAU: 2.7 (3.1); 44% have MCTS ≥2 for at least 1 item.	The intervention was clinically effective for the impact on carers

UK	depression and anxiety as judged on the hospital anxiety and depression scale; quality of life of both the carer (health status questionnaire, mental health) and the recipient of care (quality of life-Alzheimer's disease); and potentially abusive behaviour by the carer towards the recipient of care (modified conflict tactics scale).	Four Months: - START: 36% have MCTS ≥2 for at least 1 item. - TAU: 41% have MCTS ≥2 for at least 1 item. Eight Months: - TAU: 36% have MCTS ≥2 for at least 1 item. - START: 33% have MCTS ≥2 for at least 1 item. Anxiety and depression ↓ (OR = 0.24, 95% CI= 0.07– 0.76 Quality of life (mental health) ↑ (difference in means 4.09, 95% CI= 0.34 to 7.83) but not for the recipient of care (difference in means 0.59, −0.72 to 1.89) Caregiver abusive behaviour ↓ (OR= 0.47, 95% CI= 0.18 to 1.23)	in the short term. However, the study was not powered to find a significant change in elder abuse
Cooper et al. (2016)	Multiple Conflict Tactic Scale (MCTS).	No significant effects were found for abusive behaviours by caregivers at 12 or at 24 months post-intervention. A quarter of carers still reported significant abuse after two years, but those not acting abusively at baseline did not become abusive.	There was no evidence that START, which reduced carer anxiety and depression, reduced carer abusive behaviour. However, abusive behaviour reported by carers did not increase over time suggesting that talking about abusive behaviour and offering support may help carers accept rather than act on negative feelings within caring relationships. For ethical reasons, the authors frequently intervened to manage concerning abuse reported in both groups, which may have disguised an intervention effect. The authors recommended that future dementia research should include elder abuse as an outcome and consider carefully how to manage detected abuse.
Hsieh 2009 Taiwan	Caregiver Psychological Elder Abuse Behaviour (CPEAB) Scale	The intervention had significant effects in alleviating caregiver psychological abuse behaviour and increasing care-giving knowledge in the experimental group (p = .048; .018); there was no measurable effect on work stress (p = .66)	The findings show that group intervention using a multi-component approach is necessary for caregivers to help prevent abusive behaviour while improving their care-giving knowledge.

	Knowledge of Gerontology Scale (KGNS) Work Stressors Inventory (WSI)		
Santini et al. 2018 Italy	Intergenerational relationships	Prior to the intervention, students described the relationship between young and elderly people essentially as a "conflict of interests". However, 6-months into the program, students changed their opinions on older people and overcame overcome the stereotypes on ageing. At the end of the program, the older adults felt that the young were ready to listen and to help them and that there could be a friendship between the young and the old, based on closeness, intimacy, and confidence	Intergenerational programs foster the interaction between different ages, help overcome age-related stereotypes, and improve older people's mental well-being and older volunteers' generativity. The authors recommend that intergenerational activities should be integrated in the daily routine of nursing homes, acting as useful tools for fostering older residents' capability of reacting to dependency and social isolation.
Robson et al. 2018 Canada	Intergenerational relationships and solidarity Social change and agency among the youth and older adults	The project increased youth and older adults' knowledge and understanding of elder abuse in general—including its types, signs and symptoms, and systemic causes—as well as identifying unique ways it might manifest in the lives of LGBT individuals and be fostered by external and internalized homophobia.	*Raising Awareness and Addressing Elder Abuse in the LGBT Community* offers a useful and transferable model of arts-based research with a clear critical agenda to i*ncrease knowledge and understanding of elder abuse* in the LGBT community
Hayslip Jr. 2015 USA	Kogan's Attitudes Toward Old People Scale Personal Anxiety Toward Aging Scale Elder Abuse Attitudes and Behavioral Intentions Scale—Revised (EAABIS-R) Marlowe-Crowne Social Desirability Scale	The elder abuse education component resulted in less tolerance and intentions for elder abuse among young adults at the immediate post-test, but the impact was not sustained at 1-month follow-up. The aging education component was not more effective than the two control group treatments	The findings suggest that elder abuse education rather than general information about aging provided at the community level, may promote stronger attitudinal and behavioural shifts among young adults. Further, booster educational efforts over time may be necessary to sustain intervention-specific gains in intentions and behaviours particular to elder abuse
Murayama et al. 2019	Social capital	REPRINTS was found to enhance social capital among middle-aged and older local residents.	The findings show that intergenerational programs can reinforce neighbourhood trust among local residents, thereby strengthening

Japan		The intervention programs enhanced social capital in two ways: they benefited children and senior citizens through the interventions themselves, and the community benefited through the presence of a long-term REPRINTS program. Duration of programs was a significant community-level indicator of neighbourhood trust, as was recognition of the program. Both increased neighbourhood trust, especially among older and middle-aged people who have stronger neighbourhood ties to the community	a community's intergenerational ties, building social capital and sustainable community which will prevent or reduce social isolation among older people.
Alon & Berg-Warman 2014 Israel.	Awareness raising	Interviews with professionals participating in the program revealed that the project had raised their awareness of elder abuse and the problems of tackling it and informed them that they could consult with the SUPTEA and refer older adult victims. The program resulted in increased collaboration among professionals for the prevention of elder abuse.	*"The training programs helped me most. I gained a better understanding of the old people's suffering . . . I wasn't so aware of the problem before. Now, I take action immediately." (Quote from Police Officer).* Strengthening cooperation among professionals from different disciplines and different organizations hold the premise for elder abuse prevention
Mariam et al. 2015	Problem checklist for identification of risk factors for abuse or poor health Likert-type measures of Working Alliance and Dependency and Isolation Elder readiness for change on the stages of change model	Results provided for only the full-intervention. ↓in overall risk factors for elder abuse ($p < .001$); ↓in abuse risk factors associated with economic & housing; social/community ($p < .001$) & dependency/isolation ($p < .003$). No change in risk factors related to physical & mental health, or independent living. About 70.9% of participants moved at least one stage ($p < .001$) on the stages of change model	The findings indicate that working alliances can be forged with ambivalent older people, and that risk factors of elder abuse can be reduced through eliciting change in social and psychological functioning.
Richardson et al. 2002, 2004	Knowledge and management questionnaire (KAMA) Maslach Burnout Inventory (MBI)	Statistically significant difference between groups on KAMA scores with those in intervention group improving and those in control group deteriorating ($p = 0.000$).	The intervention resulted in a significant positive effect on healthcare providers' knowledge and management of abusive scenarios.

UK		Learning was highly associated with being randomized to intervention group (83.9%) compared to control group (15.2%) (chi square=11.7; P=0.001; OR=7.1 95% CI=2.2–23.0) No statistically significant differences between groups on MBI or DHCPDP	