A systematic review on community-based interventions for elder abuse and neglect

Gwendolyn Fearing, Christine L. Sheppard, Lynn McDonald, Marie Beaulieu and Sander L. Hitzig

Version  Post-Print/ Accepted Manuscript


Publisher’s Statement  This is an Accepted Manuscript of an article published by Taylor & Francis in the Journal of Elder Abuse & Neglect in 2017, available at http://www.tandfonline.com/10.1080/08946566.2017.1308286

How to cite TSpace items

Always cite the published version, so the author(s) will receive recognition through services that track citation counts, e.g. Scopus. If you need to cite the page number of the TSpace version (original manuscript or accepted manuscript) because you cannot access the published version, then cite the TSpace version in addition to the published version using the permanent URI (handle) found on the record page.
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

A systematic review on community-based interventions for elder abuse and neglect

Gwendolyn Fearing, MSW¹, Christine L. Sheppard, MSW², Lynn McDonald, PhD¹,
Marie Beaulieu, PhD³, Sander L. Hitzig, PhD⁴.⁵.⁶.⁷
1 – Institute for Life Course and Aging, Factor-Inwentash Faculty of Social Work,
University of Toronto, Toronto, Ontario, Canada;
2 – School of Public Health and Health Systems, University of Waterloo, Waterloo,
Ontario, Canada;
3 – School of Social Work, Université de Sherbrooke, Sherbrooke, Quebec, Canada;
4 – St. John’s Rehab Research Program, Sunnybrook Research Institute, Sunnybrook
Health Sciences Centre, Toronto, Ontario, Canada;
5 – School of Kinesiology and Health Science, Faculty of Health, York University,
Toronto, Ontario, Canada;
6 – Lyndhurst Centre, Toronto Rehabilitation Institute, University Health Network,
Toronto, Ontario, Canada;
7 – Department of Occupational Science and Occupational Therapy, Faculty of Medicine,
University of Toronto, Toronto, Ontario, Canada

CONTACT Sander L. Hitzig, PhD sander.hitzig@sunnybrook.ca St. John’s Rehab
Research Program, Sunnybrook Research Institute, Sunnybrook Health Sciences Centre,
285 Cummer Avenue, Toronto, ON, M2M 2G1, Canada.

Color versions of one or more figures in the article can be found online at
http://www.tandfonline.com/wean.
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

Abstract
Elder abuse and neglect is a societal issue that requires prevention and intervention strategies at the practice and policy level. A systematic review on the efficacy of community-based elder abuse interventions was undertaken to advance the state of knowledge in the field. The peer-reviewed literature between 2009 and December 2015 were searched across four databases. Two raters independently reviewed all articles, assessed their methodological quality and used a modified Sackett Scale to assign levels of evidence. Four thousand nine hundred and five articles were identified; nine were selected for inclusion. Although there was Level-1 evidence for psychological interventions (n=2), only one study on strategies for relatives (START) led to a reported decrease in elder abuse. There was Level-4 evidence for conservatorship, an elder abuse intervention/prevention program (ECARE), and a multidisciplinary intervention (n=4), which all yielded significant decreases in elder abuse and/or neglect. The remaining three were classified as Level-5 evidence (n=3) for elder mediation and multidisciplinary interventions. There are limited studies with high levels of evidence for interventions that decrease elder abuse and neglect. The scarcity of community-based interventions for older adults and caregivers highlights the need for further work to elevate the quality of studies.

Keywords: Aged, early intervention, elder abuse, elder neglect, intervention study and control, prevention and control, systematic review
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

INTRODUCTION

Elder abuse and neglect is a social issue that impacts the physical and emotional wellbeing of the victim and surrounding family members (Choi & Mayer, 2000; Lachs, Williams, O’Brien, & Pillemer, 1998). Mistreatment of older adults includes abuse and neglect, and refers to actions and/or behaviours, or lack of actions and/or behaviours that cause harm within a trusting relationship (National Initiative for the Care of the Elderly, 2012). Common types of mistreatment are physical abuse (e.g., slapping, kicking, etc.), psychological/emotional abuse (e.g., yelling, swearing at, etc.), financial abuse (e.g., stealing money, etc.), sexual abuse (e.g., unwanted touching, unwanted rough/violent sexual activity, rape, etc.), (McDonald, 2011) and neglect (intentional, unintentional, self-neglect) (Bonnie & Wallace, 2003; McDonald, 2011). The mistreatment of older adults is a public health problem that is likely to grow due to the rise of the aging population (Rovi, Chen, Vega, Johnson, & Mouton, 2009). Thus, prevention, detection and intervention strategies are imperative to curb this issue and guard older adults against elder abuse (Rovi et al., 2009).

Prevalence and incidence of elder abuse

The National Elder Abuse Study (1998) on the incidence on domestic elder abuse in the United States (U.S.) estimated that 449,924 of older persons (aged 60+) experienced some form of abuse or neglect (Tatara, Kuzmeskus, Duckhorm, & Bivens, 1998). Recent reports from the U.S. have shown that these estimates have grown to one to two million of older adults being mistreated (Bonnie, Wallace, & National Research Council, 2003). Another study (Acierno et al., 2010) on 5,777 community-dwelling older adults found that slightly more than 1 in 10 reported some form of mistreatment (Acierno
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

et al., 2010). A more disturbing finding from this study was that very few instances were reported to authorities (Acierno et al., 2010).

Within Canada, a landmark study (Podnieks, Pillemer, Nicholson, Shillington, & Frizzel, 1990) found that the prevalence of elder abuse was 4% (n = 2,008) in 1989. Like the U.S., the rates of mistreatment in Canada have increased significantly, with a recent study finding that it has more than doubled (McDonald, 2016) since 1989 (Podnieks et al., 1990). Rates outside of North America are equally troubling. For instance, a national survey from Israel found that 18% (n= 1,045) of older persons reported a minimum of one form of abuse within the last year (Lowenstein, Eisikovits, Band-Winterstein, & Enosh, 2009). A systematic review on the global prevalence of elder abuse and neglect found that over 6% of older persons (aged 65+) in the general population reported some form of abuse (Cooper, Selwood, & Livingston, 2008). Overall, the occurrence of elder abuse ranges between 2% and 10% (Pillemer & Finkelhor, 1988; Tatara et al., 1998; Thomas, 2000), which illustrate that the incidence of elder abuse is of concern and requires a nascent approach to intervene and protect the aging population.

Interventions for elder abuse

The issue of elder abuse and neglect has been deemed to have the “potential for becoming an epidemic” (Rovi et al., 2009, p. 354). Given the rising occurrences of elder abuse and neglect, along with the challenges of identifying and reporting cases of it (Fulmer et al., 2005; Jones, Veenstra, Seamon, & Krohmer, 1997; Kennedy, 2005; Rovi et al., 2009; Rovi & Johnson, 2003; Teaster, Dugar, Mendiondo, Abner, & Cecil, 2006), it is imperative that the field has evidence-based interventions that are effective in addressing this public health issue for community-dwelling older adults. Common types
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

of interventions for preventing and addressing elder mistreatment include psycho-
education for professionals and older adults (Brownell & Woldon, 2006),
multidisciplinary case management programs (Brownell & Woldon, 2006), legal
intervention by police involvement (Filinson, 1993), and psychological interventions
which may involve in-home visits (Jogerst & Ely, 1997). Unfortunately, the number and
quality of available studies providing insight into interventions for community-dwelling
older adults is sorely lacking.

Systematic reviews on available elder abuse interventions suggest that the
evidence is problematic (Ayalon, Lev, Green, & Nevo, 2016; Daly, Merchant, & Jogerst,
2011; Ploeg, Hutchison, MacMillan, & Bolan, 2009). For instance, one review (Ploeg et
al., 2009) of eight community-based interventions for elder abuse did not conduct a
formal quality assessment on the included studies, which is an essential feature of
systematic review (Ploeg et al., 2009). A quality assessment evaluates the methodological
quality of the study, including sources of bias, to provide insight on the robustness of the
findings to the issue at hand.

In the systematic review by Daly and colleagues (2011), a formal quality
assessment was conducted on their included studies but only highlighted the design
features rather than the specific strengths and weaknesses of the studies. Specifically,
studies were grouped as being Grade A (well-designed meta-analysis), B (well-designed
controlled trials, both randomized and nonrandomized, with results that consistently
support a specific action), C (observational studies or controlled trials with inconsistent
results) or D (expert opinion or multiple case reports) (Daly et al., 2011). Of the 590
studies included, no studies met the Grade A qualification, 14 were deemed Grade B, 483
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

were Grade C, and 93 were Grade D (Daly et al., 2011). Of the 14 Grade B studies, only 11 were community-based interventions (Daly et al., 2011). Although the review was useful in mapping the state of the field of elder abuse (prevalence, risk factors, interventions, observational studies, etc.), the grading assignment did not provide insights into the individual methodological strengths and weaknesses of the included Grade B studies. Further, there were no specifics provided on the other types of included articles needed to assess their quality.

Another review examined the effectiveness of a variety of interventions, including a legal policy intervention, educational program within a community mental health centre, psycho-educational and case management interventions for at risk elders and consultation and structural interventions (i.e. physical restraint reduction programs) (Ayalon et al., 2016). Although the authors described using pre-specified guidelines to assess bias, these guidelines were not well-described and no specific reports on the methodological quality of the included studies was explicitly categorized in terms of the strength of the evidence.

The limitations of the previous reviews highlight the need for a more rigorous approach to formally evaluating the methodological robustness of available interventions to prevent, detect, and manage elder mistreatment in community-dwelling older adults. To address this gap, the present systematic review provides an up-to-date formal quality assessment of elder abuse and neglect interventions for community-dwelling older adults (including their caregivers) to help advance knowledge in the field and to build a platform for designing and implementing more rigorous studies. Given the prevalence of elder abuse it is essential that policy-makers and those who care for aging persons
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

understand the quality of evidence and effectiveness for interventions that address this social issue.

METHODS

Search Strategy

The databases OVID, Proquest, CINHAL and Ageline were used to search for studies on elder abuse and neglect. In consultation with a librarian, the keywords "elder abuse* OR elder neglect* OR elder maltreat*AND prevent* OR interven* OR program*" were used to search within each database. Two independent reviewers examined each article title and abstract for appropriateness and discrepancies were resolved between the two reviewers. A third reviewer was brought into the process to help resolve any instances where consensus could not be established.

Following the review of abstracts, a full-text review of articles occurred for articles that met the following inclusion criteria: peer-reviewed quantitative studies available in English focused on elder mistreatment interventions (e.g. physical, emotional, financial or neglect) for the older adult or perpetrator living in non-institutional settings where outcomes were reported. All included articles were published between January 2009 and December 2015. This review choose the time period of six years to capture the most recent studies in the field of elder abuse interventions, and builds upon the last review done in the field (Ploeg et al., 2009). Studies were excluded if they were not available in English, dated prior to 2009, were qualitative in nature, focused on institutional interventions for older adults and if there was no mention of an intervention (e.g. prevention of elder abuse or risk factors associated with elder abuse). A
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

hand search was also performed to identify other possible articles from the reference lists of identified articles.

*Data Extraction and Quality Assessment*

Articles selected for this review were extracted into a summary table by one author, and a second reviewer verified the extracted study details. The methodological quality for each included article was assessed using either the Physiotherapy Evidence Database Scale for randomized control trials (PEDro; Moseley, Herbert, Sherrington, & Maher, 2002), or the Downs and Black (D&B; 1998) tool for non-randomized trials (Downs & Black, 1998). The PEDro scale is an 11-item tool that required a score of 1 or 0 to be assigned to each item, with the exception of item 1 which requires a yes/no response (Moseley et al., 2002). Given the potential points to be allocated to each item, this scale suggests that a higher score (maximum is 10) is indicative of a higher quality study (Moseley et al., 2002). The PEDro scale is a valid assessment tool and the reliability of the scores has been documented as “fair” to “good” (de Morton, 2009; Maher, Sherrington, Herbert, Moseley, & Elkins, 2003). The suggested score breakdown include: scores < 4 poor quality, scores 4-5 moderate quality, scores 6-8 good quality and scores 9-10 excellent quality (Moseley et al., 2002). The D&B tool assesses quality of reporting in nonrandomized trials as well as their internal and external validity (Downs & Black, 1998). This tool demonstrates good test-retest reliability and has high inter-rater reliability and validity (Downs & Black, 1998). The modified version of the D&B tool was used for this review and consists of 27-items. This assessment tool consists of 27 questions that evaluate the study’s external and internal validity (both bias and
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

confounding). Like previous studies (Eng et al., 2007; Sheppard, McArthur, & Hitzig, 2016), the last question was modified from a scale of 0–5 to a scale of 0–1, where a study was provided with a score of 1 if a power calculation or sample size calculation was present. Conversely, a score of 0 was assigned if there was no power calculation, sample size calculation or explanation on whether the number of subjects was appropriate. Thus, the highest score any reviewed article could receive was 27, with a higher score indicating higher methodological quality. The suggested score breakdown include: scores <14 poor quality, scores 15-19 moderate quality, scores 20-25 good quality and scores 26-28 excellent quality (Downs & Black, 1998; Hooper, Jutai, Strong, & Russell-Minda, 2008; Silverman, Schertz, Yuen, Lowman, & Bickel, 2012).

To describe the level of evidence supporting each study, the Modified Sackett Scale (Straus, Richardson, Galasziou, & Haynes, 2005) was used (see Table 1), which categorized each study into five levels: Level-1 (high quality) though to Level-5 evidence (low quality) (Straus et al., 2005). Two reviewers conducted the quality assessment independently for each article and disagreements were solved through discussion.

RESULTS

Figure 1 describes the extraction process for the systematic review. Two thousand three hundred and forty-one articles were identified after duplicates were reviewed. A full-text review occurred for thirty-four articles to further assess for eligibility. A total of nine articles met the entire inclusion criteria and were selected for review. Eight included articles were strictly quantitative and one utilized a mixed methods design (Alon & Berg-Warman, 2014). Only the quantitative results of that study were extracted for the review.
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

Of the nine studies (see Table 2), the types of interventions identified included (a) psychological interventions for dementia family caregivers (n = 3); (b) multidisciplinary team interventions (n = 2); (c) forensic center and conservatorship interventions (n = 2) and; (d) elder abuse intervention programs for caregivers (n = 2).

**Psychological interventions for dementia family caregivers**

Three articles examined the effect of psychological interventions on dementia family caregivers. Two articles examined outcomes from a single Level-1 study on the efficacy of the Strategies for Relatives (START) intervention, with one focusing on the affective outcomes in caregivers, carers and recipient of care quality of life and carer abusive behaviour (Livingston et al., 2013) and the other (Cooper, Barber, Griffin, Rapaport, & Livingston, 2015) reported on the longitudinal course of carer abusive behaviour over a two year period. The other article was a Level-4 study on Dialectical Behavioural Therapy (DBT; Drossel, Fisher, & Mercer, 2011).

With regard to START, this approach is a manualized psychological intervention focused on coping skills and designed to reduce abusive behaviours, depression and anxiety in caregivers of persons with dementia (Cooper et al., 2015; Livingston et al., 2013). The START intervention was based on the United States (US) programme Coping with Caregiving (Gallagher-Thompson, 2002), it consisted of eight individualized sessions with the caregiver and family member with dementia in their preferred setting (e.g., homes) by study trained therapists (Cooper et al., 2015; Livingston et al., 2013). One hundred and seventy three caregivers were either randomized to the START condition (n= 173) or to treatment as usual (TAU; n = 87), which consisted of standard practices of dementia care and carer support (Cooper et al., 2015; Livingston et al.,
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

2013). Both groups were followed up at four months and eight-months post-START and TAU and follow up at an additional twelve and twenty-four month for Cooper et al. (2015).

With regard to the primary outcome of affective states of the informal caregivers, the individuals in the START intervention had significantly better affect over the eight-month period compared to those in TAU ($p = .02$), with those in START having a lower likelihood of reporting case level depression. There was also a non-significant trend for those in START to have lower levels of anxiety than TAU members. With regards to abusive behaviours, those in START reported having less abusive behaviours towards their family member than in TAU, but this finding was not significant. While this finding was not significant, Livingston et al. (2013) highlight that their findings demonstrate external validity by the similarities of characteristics between participants who provided consent and those who did not.

In terms of the long-term outcomes of START, Cooper and colleagues (2015) focused their analysis on outcomes on abusive behaviours by caregivers via the Multiple Conflict Tactic Scale (MCTS). Similar to the earlier findings (i.e., Livingston et al., 2013), no significant effects emerged at 12 or at 24 months post-intervention. Despite the likelihood of increased symptoms associated with dementia, there was a steady decrease in both conditions related to the number of abusive behaviours by informal caregivers. This is contrary to other findings in the literature (Cooper et al., 2010; Rush Smith, Williamson, Miller, & Schulz, 2011), which highlight an association between higher rates of abuse and increased neuropsychiatric symptoms.
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

Despite having a rigorous design, the delivery of START to a small proportion of participants was hampered by a language barrier (non-English speaking), and the researchers were ethically bound to identify cases of abuse in the TAU group to the overseeing clinical teams, which may have contributed to better outcomes as a result. As well, the use of the MCTS as the measure of abuse might have affected outcomes. Although the MCTS scale is a reliable self-measure of potential abusive behaviour towards the care receiver (Cooper et al., 2015), respondents might be less likely to report honestly on the scale given the stigma associated with admitting negative thoughts and/or behaviours towards their family member. The use of other measures for identifying abusive behaviours by caregivers (e.g., third-party report, clinical reports, etc.) might have improved the findings on the effectiveness of the interventions.

Similar to the START studies (Cooper et al., 2015; Livingston et al., 2013), a pre-post within-subject experimental Level-4 study was conducted on the effectiveness of DBT for supporting informal caregivers of persons with dementia who were high in risk for abusing their family member (Drossel et al., 2011). DBT is a manualized skills training program designed to reduce harmful or interfering behaviours and increase adaptive behaviours that increase quality of life (QoL) for informal caregivers of persons with dementia (Drossel et al., 2011). The adapted DBT approach was conducted across eight sessions in a group and clinical setting, and participants were provided ‘booster sessions’ if requested. Twenty-four persons were recruited into the study, but only 16 completed the sessions, and of those, 5 completed one booster group while one caregiver attended and completed two booster sessions.
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

When assessed at post-intervention, Drossel and colleague found significant effects on their measures of problem focused coping (p<0.005), emotional well-being (p<0.004) and energy level (p<0.001) (Drossel et al., 2011). However, no significant effect on the additional measures: caregiver burden measure, health-related QoL, social functioning, or in other coping strategies (e.g., avoidance, problem-focused, etc.). Notably, two caregivers were reported to the authorities for elder abuse during the study and there was no reported reduction of abuse. Although the measures used in the study were reliable and valid for assessing coping strategies, health-related QoL, and emotional wellbeing (i.e., depression) (Novak & Guest, 1989; Radloff, 1977; Vitaliano, Russo, Carr, Maiuro, & Becker, 1985; Ware & Sherbourne, 1992), the authors noted that self-report measures should be complimented with the use of direct observation data to better assess whether DBT skills are being employed (Drossel et al., 2011). The additional constraints of having a small sample size (N = 16), along with other threats to the internal validity of the study, likely affected their ability to detect significant effects. The key recommendation for future work was to employ an RCT design that employed either a treatment-as-usual comparison group, who would receive all clinic services except DBT Skills, and/or a wait-list control comparison group (Drossel et al., 2011).

**Multidisciplinary team interventions**

Two Level-5 evidence studies examined a multidisciplinary team (MDT) approach (Alon & Berg-Warman, 2014; Ernst & Smith, 2012). One study (Alon & Berg-Warman, 2014) utilized a prospective design to evaluate an experimental model for addressing abuse and neglect, which was implemented over a three-year period. The program established a Specialized Unit for the Prevention and Treatment of Elder Abuse
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

(SUPTEA), which had a social worker serve as the coordinator, along with a social worker assistant who was responsible for doing home and follow-up visits with clients, including accompanying them to medical visits. As well, there was a MDT inter-professional (geriatric medicine, law, social work, etc.) advisory team, as well as a welfare officer for the court. A total of 40 social workers across 3 municipalities participated in the initiative, and received specialized training in identifying and detecting elder abuse and neglect as well as training on interventions. The study aimed to: a) characterize the type of interventions used by the social worker; b) examine the relationship between intervention and abuse type; c) characterize clients’ outcomes; and d) examine the relationship between the clients’ outcomes and the intervention (Alon & Berg-Warman, 2014).

Over the course of the program, 558 older adults were identified as victims of elder abuse and/or neglect, and there were 10 social workers who worked with victims and their abusers; with the involvement of 9 professionals from various services. In terms of interventions, 246 were referred to services, which fell under two umbrellas: a) counselling (individual and group); and b) legal intervention. Individual counselling was the most commonly used intervention (79%), which included support for the victim that was followed by individual counseling for the abuser, and only 14% participated in group support. These approaches were typically used most often for violation of rights and psychological abuse. Legal interventions were used in 39% of the cases, and most often used for cases involving violation of rights, financial exploitation, and physical abuse.

In terms of effectiveness, the study found that 82% (n= 246) of neglect cases improved when legal interventions were exercised and 65% (n= 246) of improvement in
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

cases of neglect when social services was the intervention of choice. In 18% of all cases, the abuse stopped (Alon & Berg-Warman, 2014). Overall, this study found their multi-system model significantly (p < 0.05, p < 0.10) improved outcomes in cases of neglect (Alon & Berg-Warman, 2014).

Another study (Ernst & Smith, 2012) that evaluated MDT utilized a model of intervention comprised of lone social workers versus social workers with a geriatric nurse to investigate and intervene in elder abuse cases reported by adult protection services (APS). The sample consisted of 869 administrative records from APS to explore abuse risk reduction, case disposition, recidivism (e.g. reduction in additional reports to APS and cost effectiveness (e.g. cost and benefits for the intervention) outcomes for a MDT approach (nurse and social worker) versus a non-MDT approach (lone social worker) towards investigating and intervening in elder abuse cases.

The study found that lone social workers were more likely to confirm financial abuse ($p = .01$), physical abuse ($p = .001$), and neglect (i.e. case disposition; $p = .001$) compared to MDT (Ernst & Smith, 2012). Conversely, the MDT yielded a higher risk reduction. There was no significant effect of the MDT model on neglect (includes neglect by others and self-neglect). With regard to risk reduction, there were significant effects for both modalities for physical abuse ($p < .01$), financial abuse ($p < .05$), and neglect by others ($p < .001$) (Ernst & Smith, 2012). When examining rates of recidivism, the MDT team had a recidivism rate of 4.16% while the lone social worker had a rate of 4.02%. Given the rates of recidivism, the use of MDT was not found to be cost-effective.

Both MDT studies (Alon & Berg-Warman, 2014; Ernst & Smith, 2012) provide some important insights on the effectiveness of their approaches in ‘real-world’ settings,
but allows for a higher introduction of bias on the data collected. For instance, both studies utilized data that was collected by the persons administering the intervention. Although the study by Ernst and Smith (2012) had the advantage of comparing a two model approach, they noted that details regarding the dynamics of the working relationship in the MDT were not well-captured, and the ability to draw strong conclusions on relative strengths and weaknesses of these approaches unfortunately fall into a ‘black box’ situation. Alon and Berg-Wardman (2014) supplemented their findings with qualitative reports to address this issue, but lack insights from a lone social worker perspective.

**Forensic centre (FC) interventions and conservatorship**

Two Level-4 evidence studies targeted elder financial abuse through the Forensic Centre (FC) which offered a multidisciplinary intervention including, medical, legal and behavioural consultation (Navarro, Gassoumis, & Wilber, 2012); and the other studied offered conservatorship by public guardian (PG) to address financial abuse (Gassoumis, Navarro, & Wilber, 2015). A PG refers to an office that manages referrals that investigate financial abuse and may also refer to conservatorship (Gassoumis et al., 2015). Conservatorship is an intervention for older persons who do not have the decision-making capacity; its purpose is to protect the older person by petitioning to the court to provide a conservator to protect the person in need (Gassoumis et al., 2015).

Navarro and colleagues (2012) systematically evaluated the effectiveness of the Los Angeles County Elder Abuse Forensic Center in prosecuting elder financial exploitation cases by using a propensity score-matching algorithm to create a comparison group to actual cases. Propensity score matching can be used to estimate the probabilities
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

that individuals from a population of interest would have been targeted for the intervention group (Braitman & Rosenbaum, 2002). The primary outcomes were to determine if: a) the case was submitted to the district attorney’s (DA) office; b) whether charges were filed; and c) whether guilt was established through plea or conviction (Navarro et al., 2012).

The propensity score matching yielded 237 cases of financial exploitation, which were compared to the FC group (n = 239). The results indicated that the FC group was more likely to be referred to the DA ($p < .001$) than the comparison group but no differences emerged in terms of the number of charges filed (73%, n = 37 out of 51 Center vs. 86%, n = 6 out of 7). Similarly, there was no difference between the FC and comparison groups in the number of cases that resulted in a successful plea or conviction (92%, n = 33 out of 36 Center vs. 100%, n = 5 out of 5). When trying to determine which factors contributed to successful outcomes, the regression models indicated that co-occurring physical abuse increased the odds of submission to the DA by nearly two times while self-neglect decreased the odds by 80%. The most robust predictor was the presentation of the case to the FC, resulting in over 10 times greater odds of the case being submitted to the DA for review. The same variables (co-occurring physical abuse, self-neglect, and FC referral) were all significant predictors (in the same direction) when predicting whether charges were filed and whether guilt was established.

Overall, the findings indicated that while there are a greater number of FC cases referred to the DA, the outcomes in terms of action (charges and prosecution) were no better than those cases not referred to the FC. The authors pointed to system level factors that may have influence outcomes, such as burdensome case loads of APS workers and
law enforcement officials, incentives to close cases when unable to access resources for determining next steps, determining if there is sufficient evidence, etc. As well, for those cases that do reach consideration for pressing charges, there is preference to use prosecution as a last resort for remedying the situation. In terms of methodological considerations, the authors noted that the limitations of relying on the use of a propensity-matched score comparison group, and that the identified cases were from only one centre.

Using the study by Navarro and colleagues (2012) as a reference point, Gassoumis and colleagues (2015) used a similar propensity-matching scoring algorithm to examine whether an elder abuse FC guarded against financial abuse; specifically examining outcomes between referrals of cases to PG from APS and conservatorship versus those receiving ‘usual care’. From this approach, they identified 237 cases of ‘usual care’ versus ‘235’ FC cases. The primary outcome was the proportion of cases referred to PG. Compared to APS usual care, FC cases were more likely to be referred to the PG for investigation (30.6%, n = 72 vs. 5.9%, n = 14, p < .001). For those referred to PG for conservatorship, 70.9% were women, and 43.9% reported as being non-Hispanic white. Suspicion of having a cognitive impairment was also found to be significantly associated with being identified by APS at risk for financial exploitation. However, there were no significant differences in outcomes for those referred to conservatorship compared to those who were referred but not conserved (Gassoumis et al., 2015).

Suspicion of cognitive impairment was found to be the strongest predictor for referral to PG (11 times greater), as well as having one referral source (e.g., social service provider). Although self-neglect as a co-occurring abuse type was a significant variable in their models, this variable was found to increase the odds by two times for receiving
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

PG referral, which contrasts the findings of Navarro et al., (2012) which found an opposite effect (decreased the odds).

Similar to Navarro and colleagues (2012), Gassoumis et al. (2015) highlighted a number of system level factors that may have influenced their outcomes (e.g., high caseloads, limited resources, etc.). As well, the lack of a more rigorous design, relatively small sample size, and the ability to draw cases from only one centre likely affected the ability to draw stronger conclusions. The small sample size was noted as being particularly restrictive given that some of the variables in their regression analyses predicting those referred to conservatorship versus those referred but not conserved were in the expected direction for significance.

A noted strength of the studies (Gassoumis et al., 2015; Navarro et al., 2012) was the introduction of the conceptual framework underlying why FC is effective in identifying cases of financial exploitation. Both highlighted how FC brings together professionals across disciplines and systems to address issues of abuse and neglect. Gassoumis and colleagues (2015) extended this initial framework introduced by Navarro et al (2012) by engaging full-time staff and regular face-to-face meetings to discuss cases as a means for facilitating problem-solving and recommended actions. As a result, a conceptual framework is provided that can be adopted and/or modified for other agencies addressing issues of abuse and neglect in older adults.

Elder abuse intervention programs for caregivers

Mariam and colleagues (2015) studied the impact of an elder abuse intervention and prevention program (ECARE) on elder abuse reduction. ECARE is a program delivered primarily to elder abuse victims/vulnerable elders, and secondly to caregivers to
minimize risk of elder abuse (Mariam, McClure, Robinson, & Yang, 2015). This program uses motivational interviewing skills to combat uncertainty related to making life changes (Mariam et al., 2015). This study identified three evaluation goals: “evaluation of working alliance between elder and outreach worker, decrease in risk factors for abuse, and elders move along the Prochaska and DiClementes (1983) stages of change” (Mariam et al., 2015, p. 23). The outcome measures consisted of a problem-checklist and Likert-scale tool to assess working alliance and dependency on harmful/inconsistent caregiver and isolation from social support as well as the Prochaska and DiClemente’s stages of change model to determine readiness for change (Mariam et al., 2015). This Level-4 study was a pre-post experimental design that found significant effects (p < 0.01) of the ECARE intervention on scores associated with Prochaska and DiClemente’s stages of change, therapeutic working alliance, as well as a decrease in risk factors for economic/housing and elder dependency and isolation (Mariam et al., 2015). While this study yielded significant results on the components of the ECARE program, the findings are limited due to the small sample size (n= 55), lack of comparison group, and rater subjectivity in their responses (Mariam et al., 2015).

Another Level-5 retrospective national e-survey assessed the impact of elder mediation on addressing elder financial abuse (Bagshaw, Adams, Zannettino, & Wendt, 2015) from the perspectives of chief executive officers (n = 228) and practitioners (n = 214) providing services to older adults and their family members as well as older adults and their relatives (n = 113). Of the respondents who had used family mediation to address financial abuse of an older adult by a family member (n=114), 59.2% reported
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

that elder mediation stopped or prevented financial abuse. The authors indicated that their findings did not provide a representative sample of the national service providers.

DISCUSSION

The outcomes of the present systematic review identified nine articles on community-based interventions for addressing elder abuse and neglect. Two studies (Gassoumis et al., 2015; Navarro et al., 2012) addressed financial abuse specifically, while the remaining addressed all types of mistreatment (Alon & Berg-Warman, 2014; Bagshaw et al., 2015; Cooper et al., 2015; Drossel et al., 2011; Ernst & Smith, 2012; Livingston et al., 2013; Mariam et al., 2015).

The highest levels of evidence were for psychological interventions for informal caregivers of dementia, specifically the START program, which yielded Level-1 evidence (Cooper et al., 2015; Livingston et al., 2013). Despite its rigour in design (e.g., randomized control, blinding of assessors and clear description of measurement tools), blinding of subjects was not possible and the only significant finding in the initial study (Livingston et al., 2013) was improved affect for informal caregivers who underwent START compared to those who received TAU, while no significant effects were found on reducing abusive behaviours in either the initial (Livingston et al., 2013) or follow-up study (Cooper et al., 2015). This suggests that both START and TAU might be equally effective for addressing mistreatment.

A Level-4 study on DBT (Drossel et al., 2011) also provided evidence that a psychological intervention benefitted the wellbeing of informal caregivers of persons with dementia, but did not have outcomes collecting data specifically on mistreatment.
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

The follow-up (i.e. booster sessions) analysis for this pre-post experimental study yielded a small sample size that did not allow for the computation of statistical significance (Drossel et al., 2011). Although two caregivers were identified and reported for neglect, the lack of a comparison group (or even a baseline value of mistreatment in the sample) makes any inferences on its effects for reducing mistreatment problematic. Regardless, there is evidence that better coping skills (e.g., problem-focused strategies) and affect are protective factors for reducing the likelihood of abuse and neglect by informal caregivers of persons with dementia (e.g. Brodaty & Donkin, 2009; Haley, Levine, Brown, & Bartolucci, 1987). High-levels of different forms social support such as instrumental (e.g. help with daily tasks), emotional (e.g. someone to love) and informational (e.g. information from health professionals), can further protect the older adult from mistreatment as a preventative intervention (Amstadter, Zajac, Hernandez, Kilpatrick, & Acierno, 2011; Brodaty & Donkin, 2009; Lachs et al., 1998). Further, psychological interventions, such as anger management programs for caregivers, may also be a useful for preventing and reducing risk factors (e.g. stress) associated with elder abuse among older adults (Dong, Chen, Chang, & Simon, 2013; Reay & Browne, 2002; Steffen, 2000).

Despite demonstrating significant reductions in elder mistreatment, the Level-5 MDT interventions (Alon & Berg-Warman, 2014; Ernst & Smith, 2012) had low methodology quality. Given a mixed methods designed (Alon & Berg-Warman, 2014) and retrospective data analysis (Ernst & Smith, 2012), blinding of subjects and assessors was not achieved. Of particular note, both studies provided clearly articulated participant inclusion criteria, outcome measures, and whether their outcomes resulted in statistical significance. The quality of MDT approaches should be evaluated internationally but
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

should be done across countries that are comparable in a variety of domains. For instance, higher-income countries are more likely than lower-income ones to have the necessary resources to coordinate services (Pillemer, Burnes, Riffin, & Lachs, 2016). Initial efforts by lower-income countries might be better served to first focus on forming essential elder abuse interventions with the existing resources, with later focus on coordination with additional resources, where available and appropriate (Pillemer et al., 2016).

In terms of financial exploitation, the Level-4 studies highlighted a key methodological issue related to having a wider sampling pool, which may allow for a more realistic comparison group than through the use of propensity matching. Key limitations of propensity matching include potential bias if a key covariate is missing from the propensity score and if unobserved covariates are unbalanced (Glynn, Schneeweiss, & Sturmer, 2006; Sainani, 2012). Hence, future studies that employ a ‘real’ comparison group will likely elevate the quality of the research, and thereby improve the robustness of the findings.

The other studies on preventing and addressing abuse provided Level-4 (Mariam et al., 2015) and Level-5 (Bagshaw et al., 2015) evidence. While both studies reported some reduction in elder abuse, both had poor methodological quality including rater-subjectivity, small sample size, limited representativeness of older adults from various organizations and the absence of a control group (Bagshaw et al., 2015; Mariam et al., 2015).

Overall, this review found only two articles with Level-1 evidence (Cooper et al., 2015; Livingston et al., 2013) with good levels of methodological quality, while the remaining studies ranged in low levels of evidence and whose methodological quality
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

varied from poor to moderate at best, with seven of the non-randomized controlled studies yielding a quality rate of <14 on the D&B tool (out of a total possible score of 27). In addition, among these non-RCT studies, there was a lack of theoretical description, except for Mariam et al. (2015). Furthermore, studies either did not have a comparison group, a small sample size, or they had challenges with both these issues. Given the nature of the research designs of some of the studies (e.g., secondary data analysis on existing clinical programs), the use of randomization and blinding are not feasible. However, issues of adverse events and some details related to power analysis could be addressed to help elevate the quality of the studies being

Other notable inconsistencies among the studies included a lack of detail regarding the cognitive status (e.g. mental health) and abilities of family caregivers, limited details on non-manualized interventions (e.g. forensic center), as well as data on the whether any positive changes in behaviours led to a sustained reduction of abuse over-time. These inconsistencies pose challenges for future researchers who may be interested in study replication or policy makers/clinicians who may desire to implement policies or evidence informed clinical decisions. The finding from this review are similar to previous reviews (e.g. Ayalon et al., 2016; Ploeg et al., 2009), which found a lack of evidence supporting effective elder abuse interventions as well as methodological limitations (e.g. no control group) that affect generalizability and conclusive findings. In terms of elder neglect, our review was similar to the findings of other another review (Ayalon et al., 2016) which did not find any interventions that specifically targeted elder neglect, thus, the authors urged future research to address the dearth of studies in this area. Another systematic review (Cooper, Selwood, & Livingston, 2008) acknowledges
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

their inability to report estimates of neglect due to a lack of psychometric properties for neglect. Unlike the review by Ploeg et al. (2009), this review did not find studies with interventions that appeared to do more harm to participants. Across different reviews (Ayalon et al., 2016; Cooper et al., 2008; Daly et al., 2011; Ploeg et al., 2009), the primary suggestion is related to the need for further high-quality studies that target elder mistreatment and neglect. This review also further highlights the need for additional research among community-dwelling older adults as previous reviews (Ayalon et al., 2016; Daly et al., 2011; Ploeg et al., 2009) have included older adults in residential long-term care settings.

There is a need for further research with stronger designs in order to elevate knowledge in the field and to develop more effective prevention and identification strategies for elder mistreatment in the community. Possible strategies to improve methodological challenges include increase sample size, describe fidelity measures that illustrate adherence to the intervention and studies that include a control group. Unfortunately, the number of studies on addressing elder abuse and neglect are still relatively sparse, which is an issue noted by other reviews on the topic (Daly et al. 2011; Ploeg et al., 2009). With this in mind, it is clear that efforts should not only be targeted towards improving the quality of studies evaluating interventions but also towards advocating for more funding on elder mistreatment research to facilitate more refined work on this topic.

While it is possible that this review did not identify all relevant studies on community-based elder mistreatment intervention studies, this review offers valuable insight into the scarcity of effective interventions targeted to elder mistreatment. This
review also highlights the need for additional rigorous studies on effective interventions and prevention initiatives to advance knowledge in this area.

**Future Research**

To elevate the quality of research in the field of elder abuse and neglect, future studies should explore experimental designs that include RCTs with comparison groups, quasi-experimental or mix-methods designs (Ploeg et al., 2009). Studies should also include larger sample sizes, where feasible, to gain representativeness and opportunities for various statistical analysis for significance. The review of quality tools, such as the D&B tool or PEDro scale, prior to undertaking a study in the field of elder abuse can be useful for informing researchers on what methodological issues they could potentially account for to elevate the quality of their study. In cases where the methodological issue cannot be accounted for (e.g., randomization), the review of quality scales during the research process can help ensure that proper reporting is done, which also serves to elevate the quality of research being undertaken in the field.

In addition to employing more robust research designs and improving the quality of reporting of findings, it is vital that future studies use theory, epistemological positions and practice models to inform their research (Burnes, 2016); this will help to better understand the ways an intervention addresses elder abuse and neglect. For example, one review (Burnes, 2016) highlighted how postmodernism, constructivism and ecological systems can serve as practice paradigms that can support research production in elder mistreatment response programs and practice principles for maltreated older adults with cognitive capacity. In the present review, only Mariam et al. (2015) used a theoretical model in their evaluation of the ECARE program, which was useful for demonstrating
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

how the intervention help the majority of their sample move towards behaviour change in the area of elder maltreatment. Mariam et al. (2015) acknowledged this framework captured the nuances of behaviours change across Prochaska and DiClemente’s precontemplation, preparation, action and maintenance stage. Hence, the use of theoretical models can help illustrate which mechanisms are being affected for promoting change in outcomes related to abuse and neglect.

Further, consideration of various system-level (e.g. health/mental health, long-term care, legal) and individual factors (e.g. cognitive level of older adult) should be explored at the onset of future research on elder mistreatment (Bonnie & Wallace, 2003; Burnes, 2016). This will lead to a critical look on varying degrees of influence on risk factors associated with this issue. In addition, it is imperative that research focus on prevention and effective interventions that avert the likelihood of mistreatment. The absence of a bird’s eye view on various systemic and individual factors that influence elder mistreatment would be a disservice to future research on preventative interventions. Further studies need to explore the effectiveness of interventions and preventative initiatives, which can be used to inform policy direction and change practice.

CONCLUSION

The purpose of this review was to examine the quality of evidence for elder abuse and neglect interventions for community-dwelling older adults. The findings of this review suggest that there are limited high quality studies on interventions for elder abuse and neglect. This finding is consistent with previous reviews (Ayalon et al., 2016; Daly et al., 2011; Ploeg et al., 2009) that have found a paucity of effective interventions for elder abuse and neglect for community dwelling older adults. The lack of effective
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

Interventions holds serious implications for practice to identify evidence-based interventions that are effective in reducing elder abuse and neglect. In order to help provide a more cohesive approach towards critiquing the quality of elder mistreatment intervention studies, efforts are also needed to identify an ideal rating tool to assess the methodological quality of findings, and thereby improve our ability to compare findings across review papers. The use of standardized tools, such as the D&B tool and PEDro scale, are promising for creating a common approach for assessing methodological rigour, but obtaining consensus in the field to determine whether existing tools are appropriate (e.g., D&B) or if there is a need for the development of a more tailored quality assessment is needed.

FUNDING

Funding for this work was provided by the Social Sciences and Humanities Research Council (SSHRC) of Canada (Grant # 895-2011-1032) and by a Royal Bank of Canada Graduate Fellowship provided to Ms. Gwendolyn Fearing through the Factor-Inwentash Faculty of Social Work at the University of Toronto.

REFERENCES


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


McDonald, L. (2016). Into the light: Results from the Canadian prevalence study on elder abuse. Presented at the National Initiative for the Care for the Elderly (NICE) Annual Knowledge Exchange, Toronto, Canada.
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT


Figure 1: Systematic review search strategy
flow diagram

Identification
Records identified through database searching (n = 4901)

Additional records identified through hand searches (n = 4)

Records after duplicates removed (n = 2341)

Records screened by abstract and title (n = 2564)

Full-text articles assessed for eligibility (n = 34)

Studies included in systematic review (n = 9)

Records excluded (n = 2531)

Full-text articles excluded (n = 25)
- Books, reviews, conference abstracts and commentaries (n=4)
- Not in English (n=1)
- Not primary research with measurable outcomes (n=6)
- No specific elder abuse intervention (n=7)
- Narrative (n=3)
- Qualitative study (n=1)
- Institutional abuse intervention (n=1)
- Policy intervention


COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

Table 1. Modified Sackett Scale.

<table>
<thead>
<tr>
<th>Level</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 1</td>
<td>RCTs with a PEDro scale ≥ 6</td>
</tr>
<tr>
<td>Level 2</td>
<td>RCTs with a PEDro scale &lt; 6</td>
</tr>
<tr>
<td>Level 3</td>
<td>Case control studies</td>
</tr>
<tr>
<td>Level 4</td>
<td>Pre-post or post intervention and case series</td>
</tr>
<tr>
<td>Level 5</td>
<td>Case reports, clinical consensus, or observational studies</td>
</tr>
</tbody>
</table>

Source: Straus et al., 2005.
Table 2. Study characteristics.

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Country</th>
<th>Score</th>
<th>Purpose, methodology, and sample</th>
<th>Intervention</th>
<th>Outcome(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livingston et al., (2013)</td>
<td>Location: UK</td>
<td>PEDro: 8</td>
<td>Sackett Scale Level: 1</td>
<td>Purpose: Examined the effectiveness of START at reducing abuse, anxiety &amp; depression in caregivers of a family member with dementia. Methodology: Single-blind RCT. Sample: Caregivers of a family member with dementia; N=260 (total sample). <strong>START</strong> (Treatment): - n=173 (33% male; 67% female; age 62.0 ± 14.6). <strong>TAU</strong> - n=87 (29% male; 71% female; age 56.1 ± 12.3).</td>
<td><strong>START</strong>: 8 session manual-based individual coping intervention based on the Coping with Caregiver programme; Strategies included relaxation, behavioural management, communication, etc. <strong>TAU</strong>: Consisted of an assessment, diagnosis, information giving, risk assessment/management, drug treatment, practical support, etc. <strong>Theoretical/Practice Model</strong>: N/A</td>
</tr>
<tr>
<td>Cooper et al., (2015)</td>
<td>START: 8 session manual-based individual coping intervention; Strategies included relaxation, behavioural management, communication, etc.</td>
<td>(OR = 0.48, CI = 0.18 – 1.27). ↓ odds (OR= 0.24, 95% confidence interval 0.07-0.76) for depression in treatment group compared to control group.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location:</strong> UK</td>
<td><strong>TAU:</strong> Consisted of an assessment, diagnosis, information giving, risk assessment/management, drug treatment, practical support, etc.</td>
<td><strong>Theoretical/Practice Model:</strong> N/A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PEDro:</strong> 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sackett Scale Level:</strong> 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Purpose:</strong> Examined whether reductions in depression &amp; anxiety in family caregivers reduces abusive behaviours towards persons with dementia in the home.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Methodology:</strong> Single-blind RCT.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample:</strong> n=260 dementia caregivers (age 62.0 ± 14.6) randomized to START or TAU</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>START:</strong> - n=173 caregivers (28.7% male; age 62.0±14.6 years); - n=173 patients (41% male; age 79.9±8.3 years).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TAU:</strong> - n=87 caregivers (28.7% male; age 56.1±12.3 years); - n=87 patients (42.5% male, aged 78± 9.9 years).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>At baseline:</strong> 49.9% of START &amp; 40.0% of TAU reported abusive behaviours.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>At 4 months:</strong> 34.5% of the START group &amp; 41.1% of TAU reported abusive behaviours.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>At 12 months:</strong> 28.3% of the START group &amp; 34.6% of the TAU group reported abusive behaviours.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>At 24 months:</strong> 32.1% of the START group &amp; 25.0% of the TAU group reported abusive behaviours.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>No significant difference in proportion of MCTS &gt; 2 after two years, after controlling for baseline MCTS scores.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Median MCTS scores:</strong> Baseline: TAU: 5;</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Drossel et al., (2012)** | **Purpose:** To examine the impact of DBT on high-risk caregivers for elder abuse when caring for a family member with dementia.  
**Design:** Pre-post experimental design  
**Sample:** Caregivers of older adults with dementia who met at least one risk factor for elder abuse or neglect.  
N= 24 (21% male; aged 33 – 87 years). | **Intervention:** 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 also provided at the request of caregivers at 12 weeks.  
**Five outcome measures:** CES-D; Caregiver burden inventory; Medical outcomes study; health survey (short version); WoC-R; Maslach Burnout Inventory  
Reports to elder protection services were made, when necessary.  
**Theoretical/Practice Model:** Interpersonal Skills Training Model (component of DBT). | **START:** 4  
4 mos: TAU: 4.1;  
START: 3  
8 mos: TAU: 3.6;  
START: 3  
12 mos: TAU: 3.1;  
START: 2  
24 mos: TAU: 3.1;  
START: 2.  
Parallel decrease in median MCTS score over time for both TAU & START.  
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 wellbeing; energy/fatigue; social functioning; emotional problems; problem focused coping; & service use. |
**Purpose:** To examine the impact of the Israeli multisystem model to treat & prevent elder abuse.

**Methodology:** Mixed method, prospective evaluation.  
- Survey’s completed by social workers.  
- Interviews & observations completed by victims & caregivers.

**Sample:** N= 558 elder abuse victims (15% male; average age 75, range: 52-103 years).  
N= 19 social workers & professionals working with older adults & families.

| Alon & Berg-Warman, (2014) | Purpose: To examine the impact of the Israeli multisystem model to treat & prevent elder abuse. | The Israeli multisystem intervention model. | 79% (n= 246) of cases received therapeutic interventions. Individual counselling most likely treatment for neglect (p< .05).  
Support groups more likely to treat psychological physical & financial abuse & neglect (p< .05 for all).  
Supportive services most likely treatment for psychological abuse & neglect (p< .05 for both).  
From supportive services, medical treatment was most used with 24% of cases, homecare (18%) & daycare centres (11%).  
**Legal Interventions:**  
39% (n= 246) of cases received legal interventions.  
Legal interventions more likely to treat financial exploitation (p < .05), physical abuse & violation of rights (p <.10 for all). |
| Location: Israel | Methodology: Mixed method, prospective evaluation.  
- Survey’s completed by social workers.  
- Interviews & observations completed by victims & caregivers. | Types of Intervention in model:  
**Therapeutic Intervention:** Individual counselling, support group and supportive services (medical & nursing care, homecare, daycare center).  
**Legal Intervention:** Authoritative intervention, police filed complaints, court order application, legal advice & guardianship. | **Counselling Interventions:**  
3 components to the model:  
(1) Unit dedicated to treatment and prevention of elder abuse;  
(2) Paraprofessional which is a social work assistant;  
(3) Multidisciplinary advisory team.  
**Theoretical/Practice Model:** N/A |
| D&B Score: 10 | Sample: N= 558 elder abuse victims (15% male; average age 75, range: 52-103 years).  
N= 19 social workers & professionals working with older adults & families. | From supportive services, medical treatment was most used with 24% of cases, homecare (18%) & daycare centres (11%).  
**Legal Interventions:**  
39% (n= 246) of cases received legal interventions.  
Legal interventions more likely to treat financial exploitation (p < .05), physical abuse & violation of rights (p <.10 for all). | **Legal Interventions:**  
3 components to the model:  
(1) Unit dedicated to treatment and prevention of elder abuse;  
(2) Paraprofessional which is a social work assistant;  
(3) Multidisciplinary advisory team.  
**Theoretical/Practice Model:** N/A |
both); 24% of cases received authoritative intervention. 14% of cases filed a complaint; 7% filed for a court order; 5% of cases received legal advice & another 5% received legal guardianship. 74% (n=246) of all cases of elder abuse improved after legal interventions ($p<0.05$); 67% of abusive cases improved after individual counselling for victims; 71% for abusers and 74% for other family members; 50% of abusive cases improved after support groups; 66% of abusive cases improved after supportive services ($p<0.10$); Abuse stopped in 18% (n=246) of cases after intervention.

<p>| Ernst &amp; Smith (2012) | Purpose: To examine the difference between a multidisciplinary | Intervention: Multidisciplinary team approach (geriatric nurse and a social worker) and Lone social workers more likely to confirm elder abuse- |</p>
<table>
<thead>
<tr>
<th>Navarro et al., (2013)</th>
<th>Purpose: To examine whether an elder abuse FC increases prosecution of elder financial abuse compared to TAU.</th>
<th>Intervention: FC - a multidisciplinary team that includes legal, medical and behavioural experts to review and consult on cases of elder abuse to prevent and protect victims as well as prosecute perpetrators, when necessary.</th>
<th>More cases referred to district attorney by the FC (21.5%) than by APS (2.9%), $X^2 = 38.43$, $p &lt; .001$. FC associated with increased odds of submitting case to district attorney for review (OR = 11, CI = 4.66-25.98, $p &lt; .001$), having</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Methodology: Quasi-experimental design (with propensity score)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sample:</td>
<td>Sample:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N= 1200</td>
<td>N= 1200</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Persons 65 years and older investigated for abuse, neglect or exploitation between July 2008 to January 2010 by Adult Protection Services (APA).</td>
<td>Persons 65 years and older investigated for abuse, neglect or exploitation between July 2008 to January 2010 by Adult Protection Services (APA).</td>
<td></td>
</tr>
<tr>
<td></td>
<td>35.9% were male; mean age 80.5</td>
<td>35.9% were male; mean age 80.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Methodology: Retrospective secondary data analysis.</td>
<td>Methodology: Retrospective secondary data analysis.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D&amp;B Score: 11</td>
<td>D&amp;B Score: 11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sackett Scale Level: 5</td>
<td>Sackett Scale Level: 5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Location: (USA)</td>
<td>Location: (USA)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D&amp;B Score: 14</td>
<td>D&amp;B Score: 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sackett Scale Level: 4</td>
<td>Sackett Scale Level: 4</td>
<td></td>
</tr>
</tbody>
</table>
### Community-Based Interventions for Elder Abuse and Neglect

<table>
<thead>
<tr>
<th>Study: Gassoumis et al. (2015)</th>
<th>Purpose: Examined the role of an elder abuse FC in referring financial exploitation abuse victims to conservatorship through the PG (i.e., being appointed a decision-maker).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: USA</td>
<td>Methodology: Quasi-experimental.</td>
</tr>
<tr>
<td>D&amp;B Score: 13</td>
<td>Sample: Persons 65 years old and older who have not received services from the FC &amp; referred to APS from April 2007 to December 2009.</td>
</tr>
<tr>
<td>Sackett Scale Level: 4</td>
<td>Total sample: N=472</td>
</tr>
<tr>
<td></td>
<td>Age: 82.3 ± 6.9</td>
</tr>
<tr>
<td></td>
<td>Female (n=314).</td>
</tr>
</tbody>
</table>

**Intervention:** The FC, which is a multidisciplinary team that includes legal, medical & behavioural experts to review and consult on cases of elder abuse to prevent & protect victims as well as prosecute perpetrators, when necessary.

**Comparison:** APS: included cases chosen from propensity matching with the variables: age (65+), race/ethnicity, APS location (16 categories) & total reported number of types of abuse (9 types).

**Theoretical/Practice Model:** The Los Angeles Elder Abuse Forensic Centre [revised conceptual model adapted from Navarro et al. (2010)]

FC gave more conservatorship referrals to PG (n=72, 30.6% of cases) compared to APS (n=14; 5.9% of cases), \( X^2 = 48.44, p < .001 \).

52.9% of FC referred cases were conserved, compared to 41.7% of APS referred cases (\( p = .52 \)).

47.1% not conserved by FC & 58.3% not conserved by comparison group.

No significant differences in type of conservatorship provided to older adult.

Cases of FC investigation were 7x more likely to be referred to PG (\( OR = 7.85, CI = 3.86-15.95, p < .001 \)).
| Mariam et al., (2015) | **Purpose:** Examine effectiveness of E-CARE in assisting suspected victims of elder abuse.  
**Location:** USA  
**D&B Score:** 10  
**Sackett Scale Level:** 4 | **E-CARE Intervention:** Community based program for elder abuse victims/vulnerable elders and to caregivers to minimize risk of elder abuse and to focus on building relationships between caregiver & older person, connecting the older person to social supports & helping them overcome difficult life changes  
**Methodology:** Pre & post experimental design  
**Sample:** N= 175 (n=56 males; age 79.59 ± 10.19);  
**Limited Intervention:** n = 26 (13 males; age 79.11 ± 9.33)  
**Full Intervention:** n = 55 (42 males; age 77.11 ± 10.56)  
**Delivery:**  
**Limited:** a brief, targeted intervention, such as referral to a support group  
- 190.63 ± 100.04 minutes of service  
- 1.69 ± 1.19 face-to-face meetings  
**Full-Intervention:** providing multiple services to meet extensive family needs:  
- 905.51 ± 958.85 minutes of service  
9.40 ± 8.58 face-to-face meetings.  
**Theoretical/Practice Model:** Prochaska & DiClemente’s stages of change model | **Results calculated for only the full-intervention.**  
↓in overall risk factors for elder abuse (p < .001);  
↓in abuse risk factors associated with economic and housing; social /community (p < .001) and dependency / isolation (p < .003).  
No change in risk factors for related to physical & mental health, or independent living.  
For progression on the Prochaska & DiClemente’s stages of change, 70.9% of participants moved at least one stage (p < .001). |
| Bagshaw et al., (2015) | **Purpose:** Examine the role of elder mediation in preventing or ending financial abuse among older adults.  
**Location:** Australia  
**D&B:** 6 | **Elder mediation:** older-person centered family mediation that involves an impartial mediator to facilitate communication, listening, sharing & assist in creating options and  
**Results:**  
83.5% (n= 114) of CEO & service providers agreed with definition of elder mediation.  
36.0% (n= 125) had practiced family |
COMMUNITY-BASED INTERVENTIONS FOR ELDER ABUSE AND NEGLECT

<table>
<thead>
<tr>
<th>Sackett Scale Level: 5</th>
<th><strong>Methodology:</strong> Retrospective national e-survey.</th>
<th>planning for the future.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sample:</strong> n=228 Chief Executive Officers (from organizations providing services to older adults &amp; their families); n=214 service providers; n=113 older adults &amp; relatives.</td>
<td><strong>Theoretical/Practice Model:</strong> N/A</td>
<td>mediation to address financial abuse of older adults by family.</td>
</tr>
<tr>
<td><strong>Age range:</strong> 40.4% (n= 109) 65 to 74 years; 42.7%; (n= 103) older adult in question; 53.8% (n= 103) female older adult; 34.0% (n= 103) daughter of older adult.</td>
<td></td>
<td>Over half (n= 125; 59.2%) stated mediation prevented or stopped the financial abuse &amp; only 20.4% said mediation had no benefit &amp; another 20.4% (n= 125) did not know if mediation was beneficial.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12 older adults, 13 daughters; 7 sons (n=60) knew of family mediation.</td>
</tr>
</tbody>
</table>

**Note:** TAU – treatment as usual; MCTS – Multiple Conflict Tactic Scale is a self-measure of potentially abusive behavior toward the care receiver (Cooper et al., 2015); mos – Months; FC – Forensic Centre: an intervention that uses a multidisciplinary approach to addressing elder abuse & neglect; APS – Adult Protection Services: an intervention that investigates alleged cases of abuse for older adults, aged 65+; ECARE-Eliciting Change in At-Risk-Elders: an elder abuse intervention and prevention program (Mariam et al., 2015); DBT- Dialectal Behaviour Therapy: a manualized intervention designed for skills trainings in various domains (Linehan, 1993).
Table 3. Summary of study strengths and limitations from quality assessment tools (PEDro & Downs and Black).

<table>
<thead>
<tr>
<th>Study</th>
<th>Strengths</th>
<th>Limitations</th>
</tr>
</thead>
</table>
| **Livingston et al., (2013)** PEDro: 8 | - Inclusion criteria identified  
- Participants randomly allocated to intervention or TAU condition  
- Assessors were blinded  
- Raters blinded at follow-up  
- Utilized validated outcome measures  
- Primary outcome measures were obtained from > 85% of participants  
- Statistical tests between the intervention & TAU group & provided a measure of treatment effect | - Participants were not blinded to condition  
- Intervention leaders blinded to condition |
| **Cooper et al., (2015)** PEDro: 6 | - Inclusion criteria identified  
- Participants randomly allocated to intervention & TAU condition  
- Assessors were blinded  
- Utilized validated outcome measures  
- Statistical tests between the intervention & TAU group & provided a measure of treatment effect | - Participants were not blinded to condition  
- Intervention leaders not blinded to condition  
- Primary outcome measures were obtained from < 85% of participants |
| **Drossel et al., (2012)** D&B Score: 12 | - Inclusion criteria identified  
- Study objectives & outcomes defined  
- Interventions clearly described  
- Main findings clearly | - Principal confounding variable(s) not reported  
- Occurrence of adverse events not reported  
- Unable to determine sample |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>D&amp;B Score:</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>Variability of outcomes provided by IQR, SD or CI</td>
<td>Principal confounding variable(s) not reported</td>
</tr>
<tr>
<td></td>
<td>Participants lost to follow-up described</td>
<td>Occurrence of adverse events not reported</td>
</tr>
<tr>
<td></td>
<td>p-values reported</td>
<td>Unable to determine sample representativeness</td>
</tr>
<tr>
<td></td>
<td>Statistical test (i.e., pair sample t-tests) for outcome measures</td>
<td>Unable to determine the variability of outcomes provided by IQR, SD or CI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Survey format does not allow for blinding of participants &amp; assessors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Participants were not randomized &amp; no control group/wait-list control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Data lost to follow-up not provided</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No blinding of participants or assessors to MDT model versus lone social worker</td>
</tr>
<tr>
<td>Navarro et al., (2013)</td>
<td>D&amp;B Score: 14</td>
<td>Unable to determine fidelity to the process of determining case disposition</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Inclusion criteria identified</td>
<td>Study objectives &amp; outcomes defined</td>
<td>Participants were not randomized &amp; no control group/wait-list control</td>
</tr>
<tr>
<td>Interventions described clearly</td>
<td>Main findings described clearly</td>
<td>Data lost to follow-up not provided</td>
</tr>
<tr>
<td>Variability of outcomes provided by IQR, SD or CI</td>
<td>Sample representative of population</td>
<td></td>
</tr>
<tr>
<td>p-values reported</td>
<td>Statistical test (i.e., $\chi^2$) used for outcome measures</td>
<td></td>
</tr>
<tr>
<td>Two different intervention groups</td>
<td>Principal confounding variable(s) not reported</td>
<td></td>
</tr>
<tr>
<td>Occurrence of adverse events not reported</td>
<td>No blinding of participants or assessors</td>
<td></td>
</tr>
<tr>
<td>Unable to determine fidelity to intervention</td>
<td>Data lost to follow-up not provided</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusion criteria identified</td>
<td>Study objectives &amp; outcomes defined</td>
<td>Principal confounding variable(s) not reported</td>
</tr>
<tr>
<td>Interventions clearly described</td>
<td>Main findings clearly described</td>
<td>Occurrence of adverse events not reported</td>
</tr>
<tr>
<td>Variability of outcomes provided by IQR, SD</td>
<td>Sample representative of population</td>
<td>No blinding of participants and assessors</td>
</tr>
<tr>
<td>p-values reported</td>
<td>Statistical tests (i.e., $\chi^2$) used for outcome measures</td>
<td>Participants were not randomized &amp; no control group/wait-list control</td>
</tr>
<tr>
<td>Two different intervention groups</td>
<td>Data lost to follow-up not provided</td>
<td>Unable to determine fidelity to intervention (FC) or TAU (APS)</td>
</tr>
<tr>
<td>Study</td>
<td>Inclusion criteria identified</td>
<td>Study objectives &amp; outcomes defined</td>
</tr>
<tr>
<td>----------------------------</td>
<td>--------------------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td>Mariam et al, (2015)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D&amp;B Score: 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bagshaw et al., (2015)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D&amp;B Score: 6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
fidelity to elder mediation intervention
- Data lost to follow-up not provided

APS = Adult Protection Services; CI = Confidence interval; FC = Forensic Centre; IQR = interquartile range; MDT – multidisciplinary team; p-value = Probability values; TAU = Treatment as usual.