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Review of Programs to Combat Elder Mistreatment: Focus on Hospitals & Level of Resources Needed

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Abstract

BACKGROUND: Elder mistreatment is common and has serious social and medical consequences for victims. Though programs to combat this mistreatment have been developed and implemented for more than three decades, previous systematic literature reviews have found very few successful ones.

OBJECTIVE: To conduct a more comprehensive examination of programs to improve elder mistreatment identification, intervention, or prevention, including those that had not undergone evaluation.

DESIGN: Systematic review

SETTING: Ovid MEDLINE, Ovid EMBASE, Cochrane Library, PsycINFO (EBSCO), AgeLine, CINAHL

MEASUREMENTS: We abstracted key information about each program and categorized programs into 14 types and 9 sub-types. For programs that reported an impact evaluation, we systematically assessed the study quality. We also systematically examined the potential for programs to be successfully implemented in environments with limited resources available.

RESULTS: We found 116 articles describing 115 elder mistreatment programs. 43% focused on improving prevention, 50% on identification, and 95% on intervention, with 66% having multiple foci. The most common types of program were: educational (53%), multi-disciplinary team (21%), psycho-education / therapy / counseling (15%), and legal services / support (8%). 13% of programs integrated an acute-care hospital. 43% had high potential to work in low-resource environments. 57% reported an attempt to evaluate program impact, but only 2% used a high-quality study design.

CONCLUSION: Many programs to combat elder mistreatment have been developed and implemented, with the majority focusing on education and multi-disciplinary team development. Though more than half reported evaluation of program impact, very few used high-quality study design. Many have the potential to work in low-resource environments. Acute care hospitals were infrequently integrated into programs.

Keywords

elder abuse; systematic review; intervention

INTRODUCTION

Elder mistreatment is defined as physical abuse, sexual abuse, psychological abuse, neglect, abandonment, or financial exploitation of an older person in any setting (e.g. home, community, or facility) in a relationship where there is an expectation of trust and/or when an older person is targeted based on age or disability.[1] This mistreatment occurs commonly, with conservatively 5–10% of community-dwelling adults aged ≥60 affected each year[1–6] and many victims suffering from multiple types concurrently. Elder mistreatment can have a profound social and health impact on victims, significantly increasing their risk for depression,[7] exacerbations of chronic illness, emergency department usage,[8,9] hospitalization,[10] nursing home placement[11,12]and death.[6,13,14] The societal cost, though difficult to estimate, is likely many billions of dollars annually in direct medical costs,[1,15] financial loss through exploitation, and services provided for victims. Though common, serious, and costly, elder mistreatment is rarely identified, with as few as 1 in 24 cases reported to the authorities.[3] Therefore, identification, intervention, and, ultimately, prevention of elder mistreatment are important public health priorities.[1,6,16]

Programs to combat elder mistreatment have been developed and implemented for more than three decades, and many vulnerable older adults, as well as families and professionals who serve them, have benefitted. Despite this, previous systematic literature reviews[17–27] examining programs have found very few that systematically analyzed outcomes and even fewer that demonstrated measurable impact. This is partly because of the complexity of designing and evaluating elder mistreatment programs and because the relatively young field includes collaborative teams with various levels of funding and research sophistication. The traditional systematic review approach, which includes and examines only programs that have undergone rigorous evaluation using high-quality study designs, risks missing innovative, promising programs which may have had an important impact on victims and communities.

We sought to conduct a more comprehensive examination of published programs, including those that had not undergone evaluation. We focused on the potential role of acute care hospitals in elder mistreatment programs. An emergency department visit or hospitalization may be the only time a homebound victimized older adult leaves their home.[16] For these and many other older adults, physical abuse may precipitate an ED visit after injury and neglect may lead to exacerbations of chronic illness or severe infections because of inadequate or inappropriate care. Even financial exploitation may lead to ED presentation when the

exploiter directly or the lack of financial resources due to the exploitation prevents an older adult from getting routine medical care including purchasing necessary medications or visiting a provider. Additionally, in most US states, health care providers are mandatory reporters when they suspect elder mistreatment.[28]

Despite this, limited existing literature suggests that hospital-based health care providers very infrequently detect and report elder mistreatment.[16,29] A recent study found that elder abuse was diagnosed in only 0.013% of U.S. ED visits.[16,29] Further, only 1.4% of cases reported to Adult Protective Services (APS) come from physicians.[30] In a survey of APS workers, of 17 occupational groups, physicians were among the least helpful in reporting abuse.[31] This underscores the unique potential for programs to combat elder mistreatment integrating acute care hospitals to be impactful.

Additionally, we hoped to identify programs that would be broadly implementable in settings with fewer resources. We recognized that many existing well-described programs have been implemented at organizations in communities with significant available resources, funding, and support. Many of these programs rely on these resources and would not be possible to implement in low-resource environments. We defined low-resource environments as those lacking: substantial infrastructure for community services, strong collaborative relationships between service-providing agencies, multi-disciplinary elder mistreatment expertise, and financial resources. These low resource environments are often in rural areas or inner cities.

The goal of this research, a preliminary step in the design and development of a new program, was to identify, characterize, and review existing programs dedicated to improving elder mistreatment identification, intervention, and prevention with a focus on programs that integrate acute care hospitals and may be implemented in low-resource environments.

METHODS

We conducted a systematic literature review to identify programs combatting elder mistreatment.

Search Strategy

We collaborated with two research librarians (DD, MD) to develop a comprehensive search strategy to identify peer-reviewed publications about programs combatting elder mistreatment. Searches were run on April 19, 2017 in a broad range of databases:[32] Ovid MEDLINE (in-process and other nonindexed citations and Ovid MEDLINE from 1946 to present), Ovid EMBASE (from 1974 to present), Cochrane Library (Cochrane Database of Systematic Reviews, Cochrane Central Register of Controlled Trials [CENTRAL], and Cochrane Methodology Register), PsycINFO (EBSCO), and AgeLine (EBSCO). An additional search was run in CINAHL (EBSCO) on May 17, 2017. All searches employed the controlled vocabulary of each database and plain language. Final search results were limited to English language studies. Full search strategy for Ovid MEDLINE is available as online supplementary material (S1). We also evaluated reference lists of reviews and retrieved articles to check for additional studies.

Inclusion Criteria

We included in the review any paper describing a specific program focused on elder mistreatment identification, intervention, or prevention. We excluded editorials, topic reviews, and articles giving general recommendations about combatting elder mistreatment. We excluded programs exclusively based in nursing homes or other long-term care settings. We also excluded descriptions and evaluations of screening tools, about which other reviews exist.[21,33–38]

Review Process

Three study authors (TR, AE, SD) independently screened titles and retrieved and reviewed abstracts and full-text articles for inclusion using a pre-designed protocol incorporating the above-described criteria. Clearly irrelevant records or those not meeting inclusion criteria were excluded based on title or abstract, and full text of each potential article was obtained and evaluated independently by two reviewers. Data was collected and stored in EndNote software (Philadelphia, PA).[4] Disagreements about study inclusions were resolved by consensus. A flowchart summarizing results of this article selection process is shown in Figure 1.

Data Abstraction and Analysis

For each paper, we abstracted a brief description of the program, its focus(es) (identification, intervention, prevention), type(s) of mistreatment targeted, target population(s), setting(s) where professionals were based, setting(s) where services were provided, and whether an acute care hospital was involved. When we identified multiple articles describing a single program, we examined all articles together rather than each separately. To assist in characterization of programs, we developed seven categories of program type. These categories were generated based on our findings and were developed through consensus after several meetings. Categories included: educational, multi-disciplinary team, psycho-education / therapy / counseling, legal services / support, emergency shelter, home visitation, case management. Notably, we considered forensic centers to be multi-disciplinary teams. Forensic centers are a type of multi-disciplinary team that has a full-time staff and conducts regular face-to-face meetings to review cases as well as joint visits, trainings, and ongoing collaboration.[39] For the categories educational and psycho-education / therapy / counseling, we included sub-categories for the target population of the program.

We assessed whether an acute-care hospital was integrated as part of each program. For this, we included programs if an acute-care hospital was a site where program services were provided or where the majority of the professionals providing the services were based. We also considered a program to have integrated an acute-care hospital if transfer of an older adult to an ED/hospital when appropriate was a part of the program. Additionally, for programs that did not integrate an acute-care hospital, we examined whether a hospital served as a potential source of referrals to the program as well as whether any physician or other hospital-based provider was involved in the program. We also assessed the potential of the program working in low-resource environments (very likely, likely, possible, unlikely, very unlikely) through consensus. Lists of characteristics we used to determine whether a program was likely or unlikely to work in a low-resource environment are listed in Table 1.

Notably, these lists were intended to be independent of each other. For articles reporting systematic program evaluation, we abstracted study design, number of subjects, and results / evidence of impact. We evaluated study quality by assessing the presence of well-established study design limitations, based in part on the SQUIRE (Standards for QUality Improvement Reporting Excellence) guidelines for quality improvement reporting[40] and the Journal of the American Medical Association's Users' Guides to the Medical Literature's assessment of articles describing quality improvement.[41] Table 2 shows the list of limitations we used. We categorized each study as higher tier, middle tier, or lower tier based on the presence of these limitations through consensus. Our analysis is limited by the fact that elder mistreatment research has not yet established optimal outcomes on which to focus and how to best measure program success. Further, we recognize that analyzing multiple types of interventions together may affect our ability to accurately describe and compare impact. Decisions about strategies for program evaluation are likely driven by program mission and funding source. For example, an educational program for professionals may measure impact on learners rather than older adults. Therefore, for these programs, we have incorporated into the list of limitations distinctions between measurement of increased knowledge vs. self-reported practice change vs. actual practice change.

RESULTS

We found 116 articles describing 115 programs in this comprehensive systematic review of peer-reviewed literature. The earliest article describing a program[42] was published in 1982. The annual rate of descriptions of new programs in this literature was: 0.04 from 1982–89, 0.26 from 1990–99, 0.39 from 2000–09, and 0.30 from January 1, 2010 – April 19, 2017. Fifteen programs were described in multiple articles (maximum of three articles describing a program) and four articles described multiple programs (as many as seven programs). Thirty-one percent of the 116 articles were published in the Journal of Elder Abuse and Neglect, which was launched in 1988, 9% in other publications devoted to elder mistreatment, and 60% in journals with a broader focus. Seventy-seven percent of programs were developed in the USA, 8% in the United Kingdom, 7% in Canada, 3% in Australia, and 5% in other countries.

The list of all programs including detailed descriptions of each is available as online supplementary material (S2). Characteristics of these 115 programs are described in Table 3. Notably, 43% of programs focused on improving prevention, 50% on identification, and 95% on intervention, with 66% having multiple focuses. The most common program types were: educational (53%), multi-disciplinary team (MDT) (21%), psycho-education / therapy / counseling (15%), and legal services / support (8%), with 20% of programs having components in multiple categories.

Target populations, settings, integration of hospitals, likelihood of deployment in low resource environments, and attempts at program evaluation among published programs are shown in Table 4. 57% reported an attempt to evaluate program impact, but only two programs[43–47] (2%) were evaluated using a higher tier quality study design and 6 programs[48–55] (5%) using a middle tier quality study design. Of those with a high quality study design, both were psychoeducational / therapeutic / counseling, one for older adults

and the other for informal/family caregivers. The START program (STrAtegies for RelaTives)[43–45] reduced anxiety and depression among caregivers but did not reduce abusive behavior or improve quality of life for older adults. More promisingly, the PROTECT (PRoviding Options To Elder Clients Together)[46,47] intervention showed assistance with problem-solving, and, though not statistically significant, decrease in depressive symptoms and improvement in perceived abuse status relative to controls. Among programs evaluated using middle tier quality study design, three were educational,[50–52,56] one was a multi-disciplinary team,[54,57] one was decision support for clinicians,[48] and one combined psychoeducational / therapeutic / counseling and home visitation.[53] Most only showed modest short-term impact. An educational program for mental health and home care professionals demonstrated improvement in documentation of abuse and neglect risk assessment, and an educational program for social and health care professionals showed an increased ability to detect financial elder abuse in case scenarios.[48] An educational program designed for the public to alter tolerance for and behavioral intentions of elder abuse showed impact in an immediate post-test, but this did not persist at one month.[52] In the multi-disciplinary team, cases were more likely to be referred for guardianship and criminal justice, but case resolution times were not shorter.[49,54] For the combined psychoeducational / therapeutic / counseling and home visitation program, several types of elder abuse (emotional neglect, care neglect, financial neglect, curtailment of personal autonomy, psychological abuse, and financial abuse – but not physical abuse) were reduced 30 days post-intervention vs. controls using self-report to measure.[53]

Thirteen percent of programs[42,56,58–71] integrated an acute-care hospital in the intervention. The 15 programs which integrated acute care hospitals are listed and described in more detail in online supplementary material (S3). An additional 5%, though they did not integrate an acute-care hospital, used the hospital as a potential source of referrals to the program, and 17% had a physician or other hospital-based provider involved in the program. Thus, a total of 35% of programs had some relationship to an acute care hospital. 22% of all programs were likely or very likely deployable in low-resource environments with an additional 21% possible.

Programs that integrated acute care hospitals differed from those that did not in important ways. Programs integrating hospitals less often focused on prevention (13% vs. 43% of all programs). Also, a higher percentage (40% vs. 28% of all programs) were very unlikely deployable in low-resource environments, highlighting that many of these programs were resource-intensive.

DISCUSSION

This review represents, to our knowledge, the first report attempting to comprehensively describe published elder abuse programs without excluding those that had not undergone rigorous evaluation. As such, it offers an opportunity to broadly examine strategies used to combat this common, serious, and under-appreciated phenomenon. More programs focused on intervening on existing mistreatment rather than prevention or identification. Financial exploitation and physical abuse were the most common types of abuse targeted, perhaps because they were perceived to be the most serious or common. Also, both lent themselves

to collaborative solutions involving social services, law enforcement, health care, and financial services. Notably, 75% of programs targeted multiple types of mistreatment rather than focusing on a single type. Though likely to be relevant to a broader range of victims, we believe, based on our previous program-related experience, that differences in victims, perpetrators, and surrounding circumstances between types of mistreatment may have reduced programs' ability to demonstrate a large impact.

Programs included approaches in seven categories, suggesting that a wide variety of strategies have been employed. Twenty percent of programs included multiple categories of strategy. This suggests that the field is undertaking more ambitious, integrated interventions. Notably, however, 74% of programs were either educational or multi-disciplinary teams. Educational programs (53%) may have been most common because they were easier to implement or integrate into existing programs and less resource-intensive than other approaches. Programs most commonly targeted professionals and professional students / trainees, and their utility was underscored by participant reports that the programs were helpful and necessary. Unfortunately, most of these educational programs involved one or a small number of training sessions, and their long-term impact or their effect on actual elder mistreatment prevention, identification, and intervention was not evaluated. Multi-disciplinary teams (MDTs) were also common, emphasizing the recognized value of inter-disciplinary collaboration in combating elder mistreatment. Though MDTs, particularly large teams with a devoted coordinator, are typically more resource-intensive than educational interventions, these multi-disciplinary programs have been publicized and disseminated.[72] Notably, the structure, participants, and focus varied widely between MDT programs we examined, suggesting the importance of improving understanding of the types that exist currently, identifying optimal approaches through comparative research, and disseminating tools and best practices. Initial stages of this work are already underway with an ongoing study surveying existing MDTs[73] and development of a toolkit by the US Department of Justice.[74]

Adult Protective Services (APS) played a critical role in many of the programs we described. APS is a social services program provided by state and local government nationwide serving older adults and adults with disabilities. In all states, APS is charged with receiving and responding to reports of maltreatment and working closely with clients and a wide variety of allied professionals to maximize clients' safety and independence.[75] APS caseworkers were the focus of some educational interventions and were also the professionals providing a variety of interventions. Particularly, APS served as a member of the many of the MDTs.

More than half of the programs report at least some attempt at evaluation, suggesting that the field recognizes the importance of measuring impact. Unfortunately, only two programs used a higher tier quality study design, and six used a middle tier quality. With few exceptions, these programs, which were rigorously evaluated, generally only showed a modest measurable impact. This finding confirms other systematic reviews,[19,26] which have concluded that no programs with high-quality study designs have shown significant measurable impact. It emphasizes the challenges in designing and conducting research to evaluate elder mistreatment programs. This highlights opportunities for improvement of

techniques. Additionally, conducting high-quality evaluation research can be expensive, and additional funding is needed.

A surprising finding is that the number of new programs described in the literature is stable, rather than increasing. An increase might be expected given that recognition of the importance of the elder mistreatment has grown. This suggests the possibility that development of new programs may not be increasing in parallel to increased recognition of the phenomenon. Alternatively, program developers may be choosing methods for dissemination other than academic literature, such as websites or blog posts. Notably, a higher percentage of programs described recently in the literature include evaluation, particularly higher or middle quality study designs. This suggests that the absence of increase in published programs may also reflect tightening of publication standards for manuscripts describing innovative programs.

Encouragingly, a larger percentage (22%) of programs would very likely or likely be deployable in low resource environments. Ninety-two percent of these programs were educational. Though a critical initial step to combat elder mistreatment, many of these programs showed only modest short-term impact on knowledge and attitudes of professionals. None demonstrated impact on safety of older adults. Many of the most promising collaborative strategies (including home visitation, social services / legal services collaborations, emergency shelters, and multi-disciplinary teams) as well as programs that integrated multiple strategies have the potential for greater impact but are less likely to be implemented in low resource environments. As a result, appropriating these strategies to design interventions to implement in low-resource environments may require modifying or simplifying as well as adapting individual components of programs reported on here. This adaptation may be based in part on the resources available in each community.

Only 13% of programs integrated an acute-care hospital and 7% provided services within the hospital itself. This represents an important potential opportunity for focus for future programs. Hospitals are highly resourced, multi-disciplinary, open 24 hours a day, and have established strategies for quality improvement program evaluation as well as professional education. Additionally, though hospitalization may be a critical opportunity to identify elder mistreatment and intervene, existing literature suggests that providers currently infrequently detect it. This further underscores the potential for an innovative program integrating an acute care hospital to have a large impact. Among the programs integrating an acute-care hospital, a broad range of strategies were employed, including educational interventions (60%), multi-disciplinary teams (20%), and protocols (13%). Among these programs, only educational interventions (33% of all programs) had high likelihood of being implemented in low-resource environments. This suggests that innovative programming approaches are still needed for impactful programs integrating acute-care hospitals and deployable in low resource environments. Re-focusing efforts on developing programs for this setting may be very helpful.

Notably, an additional 22% of programs either used the hospital as a potential source of referrals to the program or had a physician or other hospital-based provider involved in the program. These programs may already have an established foundation that may make them

ideal targets for expansion to fully integrate an acute care hospital. Additionally, opportunities to more closely connect APS, given their investigative responsibilities, with acute care hospitals may be particularly fruitful in enhancing the comprehensiveness and effectiveness of the entire system of prevention, identification, and intervention.

Our finding among all programs that resource-intensive strategies often had higher impact highlights the importance of future research examining the potential of programs to reduce health care and other costs associated with elder mistreatment. Though these studies have not yet been conducted, they are critical to developing a business case for communities and local governments as well as insurers, accountable care organizations, and hospitals to justify implementation of resource-intensive programs in low-resource environments.

Limitations

This study has several limitations. Though we used an established, systematic approach, our search strategy may have missed key articles and not included relevant programs. Our search did not include the social services and legal literature, an important limitation given the multi-disciplinary nature of elder mistreatment response. We chose this approach because of our goal of identifying programs that integrated acute care hospitals and certainly didn't intend to de-value the critical input from other disciplines. Notably, however, of the 116 articles we included in this review, 75 were published in journals that would be categorized as social science. We also did not include non-English studies, grey literature, abstracts, or theses. Programs that we included may have updates or additional information about which we were unaware. Despite this, we believe that this comprehensive review offers valuable, important new insights about the state of elder mistreatment program development and evaluation within the field.

CONCLUSION

Many programs to combat elder mistreatment have been developed and implemented using a wide variety of strategies. Most are educational programs or multi-disciplinary teams. Many have the potential to work in low-resource environments. Acute care hospitals are infrequently integrated into programs, suggesting a potential missed opportunity. These findings suggest existing challenges and future directions for program development and evaluation research.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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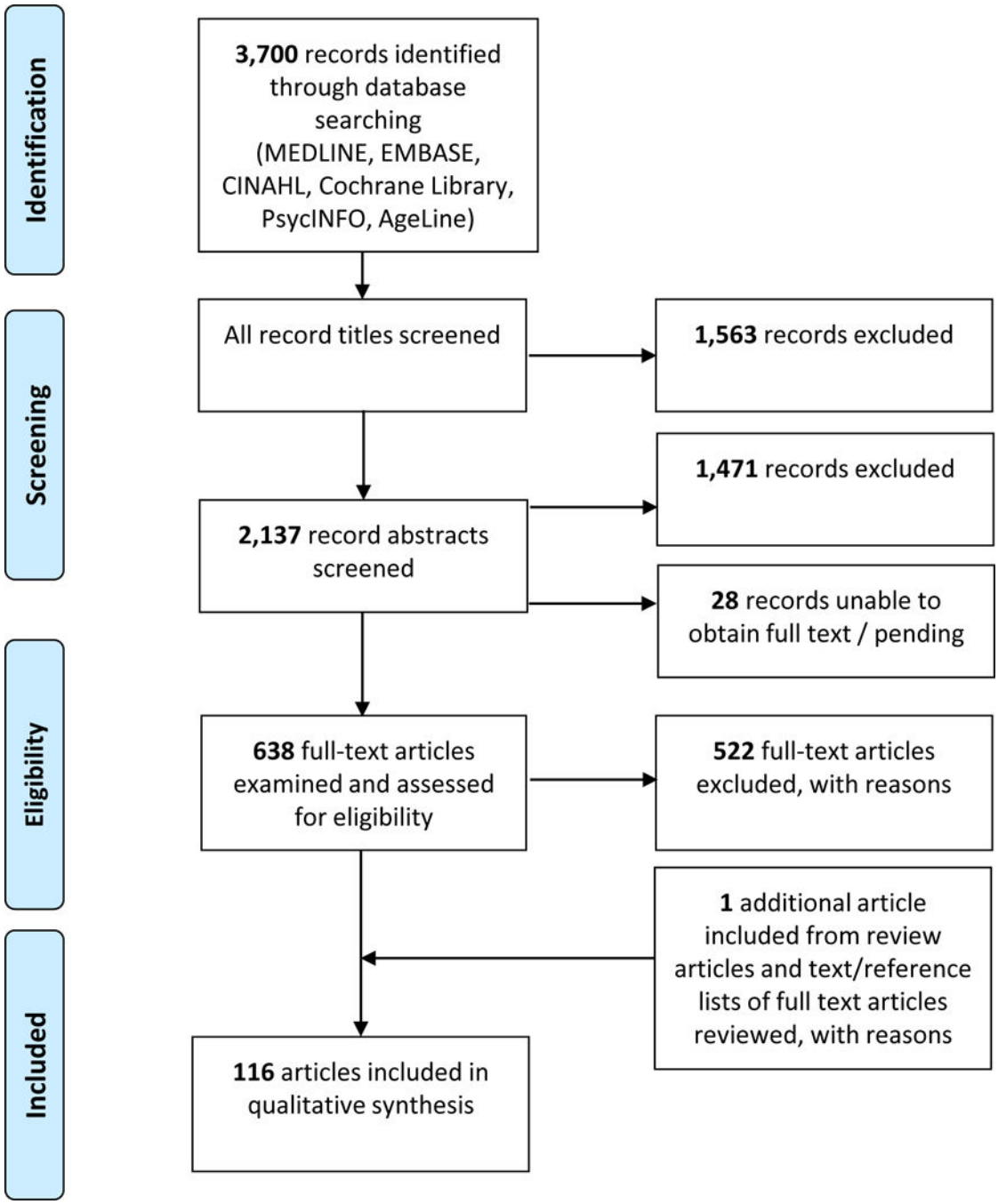

Figure 1: Identifying Elder abuse prevention, identification, and intervention strategies: Systematic literature review flow diagram

Note: Reasons for exclusion during screening and assessment of eligibility included: no description or evaluation of new program or intervention, description or evaluation of screening/identification tool, focus on: resident-to-resident elder mistreatment in nursing homes, reduction of nursing home restraint use, self-neglect, crime victimization.

Table 1:

Characteristics suggesting a program was likely or unlikely to work in a low-resource environment

Characteristics Suggesting Likely	Characteristics Suggesting Unlikely
Intervention may be administered simultaneously to group of caregivers or victims	Requires extensive training and/or oversight for providers
Much of intervention may be conducted on telephone	Requires access to trained therapy / clinical providers
Training or educational session can be integrated into existing curricula	Involves home visits by multiple health care professionals
Requires few training or educational sessions	Requires multiple in-person sessions over extended time
New program or protocol is easily integrated into existing processes within institution	Requires full-time staff
Training is manualized	Requires non-governmental community-based organization with extensive resources
	Requires significant ongoing financial support

Table 2:

Limitations in study design used to assess quality of studies evaluating impact of programs

Small sample size
Non-scientific sample
No comparison group
Comparison group limited given important differences from study group
Use of administrative database not intended for research
Only examined short-term outcomes / no long-term follow-up
Evidence of change in knowledge only, not practice change
Reliance on self-reported outcomes rather than actual practice change
No measure of direct impact on victims / older adults
Variations in delivery of intervention, including difficulty implementing

Table 3:

Characteristics of published programs (n=115) focusing on elder mistreatment identification, intervention, or prevention

Focus(es) of Program	
Prevention	43%
Identification	50%
Intervention	95%
Multiple	66%
Type	
Educational	53%
Professionals	34%
Professional Students / Trainees	11%
Public	10%
Older Adults	9%
Family / Informal Caregivers	4%
Multiple	10%
Multi-Disciplinary Team	21%
Psycho-education / Therapy / Counseling	15%
Older Adults	7%
Family / Informal Caregivers	4%
Multiple	3%
Legal Services / Support	8%
Emergency Shelter	7%
Home Visitation	6%
Case Management	6%
Multiple	20%
Mistreatment Type(s) Targeted	
Financial Exploitation	94%
Physical Abuse	83%
Neglect	79%
Emotional Abuse	79%
Sexual Abuse	77%
Multiple	75%

Table 4:

Target populations, settings, integration of hospitals, likelihood of deployment in low resource environments, and attempts at program evaluation among published programs (n=115) focusing on elder mistreatment identification, intervention, or prevention

Target Population(s)	
Older Adult / Victim	57%
Health Care Provider	22%
Community Service Provider	19%
Caregiver / Potential Perpetrator	7%
Home Health Aide	3%
Multiple	16%
Setting(s) Where Professionals Based	
Community-Based Organizations	49%
Hospital / Academic Medical Center / Outpatient Medical Clinic	16%
Academic Institution / University	12%
Law Enforcement / Legal / District Attorney's Office / Court	10%
APS	7%
Other Medical (Emergency Medical Services, Home Care)	3%
Nursing Home	3%
Other *	6%
Multiple	27%
Not reported	6%
Setting(s) Where Services Provided	
Community / Community Based-Organization	66%
Victim's Home	17%
Hospital / Academic Medical Center / Outpatient Medical Clinic	12%
Academic Institution / University	6%
Law Enforcement / Legal / District Attorney's Office / Court	6%
APS	3%
Via Telephone	3%
Other **	13%
Multiple	25%
Not reported	11%
Hospital Integrated into Program	13%
Hospital Not Integrated into Program, but:	
Hospital Serves as Referral Site	5%
Hospital-Based Provider Involved	17%
Likelihood of Deployment in Low Resource Environments	
Very Likely	4%

Target Population(s)	
Likely	18%
Possible	21%
Unlikely	29%
Very Unlikely	28%
Reported Attempt at Program Evaluation	
Any	58%
Evaluation with Higher Quality Tier Study Design	2%
Evaluation with Middle Quality Tier Study Design	5%
Evaluation with Lower Quality Tier Study Design	51%

* Other Settings Where Professionals Based included: Shelters, Banks, Churches, Department for the Aging

** Other Settings Where Services Provided included: Shelters, Banks, Online, Emergency Medical Services, Home Health Care Agencies, Churches, Continuing Education Events – no further information