

SYSTEMATIC REVIEW

The prevalence of elder abuse and neglect: a systematic review

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Abstract

Objective: to perform a systematic review of studies measuring the prevalence of elder abuse or neglect, either reported by older people themselves, or family and professional caregivers or investigated using objective measures.

Methods: we conducted a comprehensive literature search of multiple databases up to October 2006, supplemented by a search of the references of all relevant articles. Validity of studies was graded by two authors independently using a standardised checklist.

Results: forty-nine studies met our inclusion criteria, of which only seven used measures for which reliability and validity had been assessed. In the general population studies, 6% of older people reported significant abuse in the last month and 5.6% of couples reported physical violence in their relationship in the last year. In studies using valid instruments involving vulnerable elders, nearly a quarter reported significant levels of psychological abuse. Five per cent of family caregivers reported physical abuse towards care recipients with dementia in a year, and a third reported any significant abuse. Sixteen per cent of care home staff admitted significant psychological abuse. Rates of abuse recorded using objective measures (5%) or reported to home management or adult protective services (APS) (1–2%) were low.

Conclusion: one in four vulnerable elders are at risk of abuse and only a small proportion of this is currently detected. Elders and family and professional caregivers are willing to report abuse and should be asked about it routinely. Valid, reliable measures and consensus on what constitutes an adequate standard for validity of abuse measures are needed.

Keywords: *elders, abuse, prevalence*

Introduction

Elder abuse is associated with distress and increased mortality in older people [1] and caregiver psychological morbidity [2]. Discovering the prevalence of abuse, perpetrated against vulnerable people by those they rely on, is inherently difficult.

There are a wide range of prevalence figures perhaps because studies employ different populations, measures and definitions of abuse. The Department of Health's guidance [3] defined abuse as 'a violation of an individual's human and civil rights by another person or persons'. It sub-categorises abuse into physical, psychological, sexual, financial, discriminatory abuse and neglect and specifies that abuse is either an individual or repeated act(s) or omission(s). Numerous instruments measure abuse. They vary in items included and the level and frequency of abusive acts considered to constitute an abuse case. Accurate

estimates of elder abuse are vital for service planning in our ageing society.

Objective

To produce the first systematic review of the prevalence of elder abuse using standardised criteria of study quality.

Methods

Search strategy

We searched databases [Allied and Complementary Medicine (1985–); British Nursing Index (1994–); CINAHL (1982–); EMBASE (1974–); MEDLINE (1950–); PsycINFO (1806–)] up to October 2006. We used the keywords: *incidence or prevalence, elder abuse; elder and abuse; potentially harmful*

C. Cooper et al.

behaviour of carer or caregiver; abuse and nursing home and residential home or care home. We searched references of all included papers and review articles.

Inclusion and exclusion criteria

We included primary research reporting the incidence or prevalence of elder abuse. We excluded reports of lifetime abuse (which could, for example, include child abuse); routine service data; dissertations and meeting abstracts.

Data extraction

Two authors evaluated extracted data using the following standardised checklist [4].

- (1) Was the target population defined by clear inclusion and exclusion criteria?
- (2) Was probability sampling used to identify potential respondents (or the whole population approached)?
- (3) Did characteristics of respondents match the target population, i.e. was the response rate $\geq 80\%$ or appropriate analysis included comparing responders and non-responders?
- (4) Were data collection methods standardised?
- (5) Was the abuse measure valid?
- (6) Was the abuse measure reliable?
- (7) Were features of sampling design accounted for in the analysis, through appropriate weighting of the data, or the whole population approached?

Disagreements were resolved by consensus between three authors. We calculated the 95% confidence intervals (CI) for the prevalence or incidence of total elder abuse where authors did not.

Results

About 322 abstracts were identified electronically, and 31 further titles from references of included studies. We retrieved 80 of these papers which appeared to meet the inclusion criteria. Forty-nine studies met the inclusion criteria, 13 were not on elder abuse prevalence or incidence studies, 13 were not of original research, 3 were meeting abstracts, 1 reported lifetime abuse and 1 repeated data. We discuss below studies using valid and reliable abuse measures ($n = 7$) or studies with clearly defined target populations, probability sampling and standardised data collection methods. Tables 1–4 list all other studies.

General older population surveys

Prevalences of overall abuse ranged between 3.2 and 27.5% in general population studies [Table 1 and Appendix 1, (see the supplementary data on the journal website <http://www.ageing.oxfordjournals.org>)].

General population studies using validated and reliable instruments

Oh *et al.* [5] recruited people aged ≥ 65 in Seoul, and reported content validity and subscale internal reliability ($\alpha = 0.7–0.92$) of a new instrument. Abuse caseness was defined as ≥ 1 abusive act occurring $\geq 2–3$ times per month. About 1.9% reported physical abuse, 4.1% financial abuse, 3.6% verbal abuse, 2.4% neglect and 4.2% psychological abuse. Harris [6] reanalysed data from an epidemiologically representative US survey about violence in private homes. They included older couples and used the physical aggression subscale of the Conflict Tactics Scale (CTS), for which internal consistency and construct validity have been reported in a different (student) population [7].

Studies using reliable instruments

Chokkanathan [8] investigated elder abuse in an Indian probability survey. They systematically excluded people who scored < 4 on the Elderly Cognitive Assessment Questionnaire (indicating probable dementia), so the sample differed from the target total population. Their abuse scale, which included items from the CTS and additional questions, was translated to Tamil and again translated back to ensure accuracy. They reported internal reliability for their scale ($\alpha = 0.94$) and subscales ($\alpha = 0.75–0.98$), but no measure of validity was included. The study used the Pillemer criteria which defined abuse caseness as verbal or neglectful acts occurring ≥ 10 times a year, and physical or financially abusive acts occurring at least once a year. About 10.8% of participants reported verbal, 5% financial, 4.3% physical abuse and 4.3% neglect.

Studies using instruments without reported psychometric properties

In a 1992 British National survey [9], people aged 60+ were asked whether a close family member or relative had recently frightened them by shouting, insulting or speaking roughly (verbal abuse); pushed, slapped, shoved or been physically rough with them in any other way (physical abuse); or taken money or property from them without their consent (financial abuse). About 1.7% reported any physical abuse, while 1.5% reported financial abuse and 5.6% verbal abuse that had occurred ‘recently’.

Pillemer and Finkelhor [10] conducted a random sample survey among people aged 65+. They over-sampled those living with younger people, whom the literature indicated were at greater risk of abuse, and weighted analyses accordingly. If the older person was not capable of being interviewed, they interviewed the primary carer. They modified the CTS to measure physical and psychological abuse, but did not report psychometric properties for their adapted instrument. They also used a section of the OARS (Duke Older American Resources and Services) instrument to measure neglect, but we found no evidence that this is a valid measure of neglect. They developed ‘the Pillemer criteria’ wherein abuse caseness was defined as verbal (1.1%)

Table 1. Studies asking general population samples of older people about abuse

Study	Sample	n	Response rate	Abuse measure	Prevalence period	Abuse by:	Validity questions (see questions in method)							
							1	2	3	4	5	6	7	Sum
Oh [5]	All people aged 65+ in a district of Seoul, Korea	15,230	53%	Own questions	1 month	Not stated	✓	✓	X	✓	✓	✓	X	5
Harris [6]	Random USA sample of people aged 65+, living as couple, private households	842	Not stated	CTS physical aggression subscale	1 year	Either spouse	✓	✓	X	✓	✓	✓	X	5
Chokk-anathan [8]	Probability sample of people aged 65+, without cognitive impairment, in Chennai, India in private households	400	80%	CTS + own items	1 year	Anyone	✓	✓	X	✓	X	✓	X	4
Ogg [9]	Random sample of people aged 60+, in private households in Great Britain	589	79%	Own questions	Recently	Family member	✓	✓	X	✓	X	X	✓	4
Pillemer [10]	Random sample of people aged 65+ in private households in Boston; those living with other people over-surveyed	2,020	72%	CTS and OARS (neglect)	1 year	Anyone	✓	✓	X	✓	X	X	✓	4
Podkieks [11]	Random sample of people 65+ in private households in Canada	2,008	Not stated	CTS, OARS and own items	1 year; financial = 65+	Anyone	✓	✓	X	✓	X	X	✓	4
Wetzels [12]	Random sample of people aged 60+ living in private households in Germany	5,711	84%	CTS and own items	4 years	Co-resident	✓	✓	✓	✓	X	X	X	4
Comijs [13]	Random sample of people aged 65+ in private households in Amsterdam	1,797	<59%	CTS, measure of wife abuse; violence against man; own items	1 year	Anyone	✓	✓	X	✓	X	X	X	3
Kivela [14]	People aged 65+ in Finnish town; ≥ moderate dementia and debilitating illness excluded	1,086	89%	Own questions	After retirement	Anyone	✓	✓	X	✓	X	X	X	3
Tornstam [35]	Random sample, retired people in private households in Sweden and Denmark	2,478	Not stated	Own questions	1 year	Anyone	X	✓	X	✓	X	X	✓	3
Hirseh [36]	People aged 60+ in Bonn	425	10%	Own questions	5 years	Anyone	✓	X	X	X	X	X	X	1
Yan [37]	People aged 65+ in Hong Kong, recruited through community centres and approached in recreational housing estate areas	355	<80%	CTS and own items	1 year	Family or domestic helper	X	X	X	✓	X	✓	X	2
Yan [38]	As above, fewer people in recreational areas	276					X	X	X	✓	X	✓	X	2
Ockleford [39]	Opportunity sample of women from Irish, Italian and British professional and voluntary organisations	149	N/a	Own questions	Since aged 60	Anyone	X	X	X	X	X	X	X	0

CTS, Conflict Tactics Scale; OARS, Older American Resources and Services.

and neglect (0.4%) acts occurring ≥ 10 times, or any physical abuse (2.0%) in a year.

A Canadian telephone study of a random sample [11] used items from the CTS, their own questions and the OARS (to measure neglect). They reported a prevalence of 1.4% of verbal abuse and 0.4% of neglect occurring ≥ 10 times,

and 0.5% of any physical abuse over a year. About 2.5% of participants reported financial abuse since the age of 65. Wetzels *et al.* [12] also modified the CTS and added their own questions; they asked a random sample of people aged 60+ in Germany about physical and verbal abuse perpetrated by another household member over the past 4 years. For

Table 2. Studies asking other populations of older people about abuse

Study	Sample	n	Response rate	Abuse measure	Prevalence period	Potential abuse	Validity questions (see questions in method)							
							1	2	3	4	5	6	7	Sum
Dependent older people														
Wang [15]	Random samples of people aged 60+ partially dependent on a carer living in (1) care homes (2) private households in 2 counties, Taiwan	195	Not stated	Psychological elder abuse scale	Not stated	Carer	✓	✓	X	✓	✓	✓	X	5
Beach [16]	Cognitively or physically impaired people aged 60+ in private households in Texas, Georgia, Pittsburgh and Dallas; recruited from hospitals, social service agencies, support groups, local media	265	Not stated	Modified CTS	Not stated	Carer	✓	X	X	✓	✓	✓	X	4
Fulmer [17]	People aged 70+ with MMSE 18+ and carer for ≥20 h a week, attending four emergency departments in New York and Tampa, USA	165	41%	Elder abuse assessment instrument	Not stated	Any	X	X	X	✓	✓	✓	X	3
Pittaway [20]	People aged 55+ receiving home-care services recruited from service provider lists in London, Ontario	605	78%	Own questions	Verbal and neglect: 1 year; other aged 55+	Any	✓	✓	X	✓	X	X	X	3
Buri [21]	People aged 65+ enrolled in the Iowa Medicaid Waiver program (provides home care) in Polk County and random sample from other counties	1,017	49%	Own questions	Not stated	Any	✓	✓	X	X	X	X	X	2
Primary care														
Risco [22]	Random sample of Spanish primary care patients aged 72+ without severe cognitive impairment	209	64%	Canadian Task force and AMA definition	Not stated	Any	✓	✓	X	✓	X	X	X	3
Ruiz [23]	Consecutive attendees aged 70+ at Barcelona primary health service, without cognitive or sensory impairment	219	89%				✓	X	X	✓	X	X	X	2

CTS, Conflict Tactics Scale

neglect, they asked whether the person had been refused food or medical assistance or forced to take sedatives. About 3.4% had experienced any physical abuse, 1.3% financial abuse, and 2.7% neglect in the last 4 years, and 0.8% ≥10 verbally

abusive acts over any 1 year of that time; the computed 1-year prevalence rate for any abuse or neglect was 3.1%.

The 1-year prevalences reported among people aged 65+ in Amsterdam [13] were about 3.2% for verbal abuse and

Table 3. Rates of abusive behaviours reported by family carers

	Recruitment of care recipient and family carers	n	Res-ponse rate	Abuse measure	Case defined	Period	Prevalence of abuse (%)		Validity questions (see method)						
							Rate	1	2	3	4	5	6	7	Sum
Paveza [24]	People aged 40+ with Alzheimer's disease diagnosis and their carers were recruited from memory and other hospital clinics in USA	184	36%	CTS severe violence subscale	Any abuse	Year since diagnosis	Physical: 5%	✓	X	X	✓	✓	✓	X	4
Pot [25]	People with a CAMDEX/DSMIIIR dementia recruited from Amsterdam epidemiological study, day hospital and memory clinic. Carers provided direct care ≥ once a fortnight	169	97%	Own questions	Pillemer criteria	1 year	Verbal: 30% Physical: 11%	✓	X	✓	✓	✓	X	X	4
Compton [2]	Referrals to Northern Ireland Community Mental Health Team: aged 65+, DSMIIIR dementia, community-dwelling, and main carer	38	78%	Not standard	Pillemer criteria	1 year	Verbal: 34% Physical: 11% Any: 37%	✓	✓	X	✓	X	X	X	3
Cooney [41]	People aged 65+ with DSMIIIR dementia diagnosis and main co-resident carers were recruited from London Health authority register and dementia community support team	82	93%	CTS and own items	Pillemer criteria	1 year	Verbal: 51% Physical: 20% Any: 52%	✓	X	✓	✓	X	X	X	2
Homer [42]	People receiving/consecutively referred for geriatric services respite care, or attending day hospital for respite in London and their carers	51	72%	Not standard	Pillemer criteria	1 year	Verbal: 41% Physical: 14% Any: 45%	✓	X	X	✓	X	X	X	2
Cooney [43]	Carers recruited from a voluntary organisation for dementia carers	67	34%	Not standard	Pillemer criteria	1 year	Verbal: 52% Physical: 12% Any: 55%	X	X	X	✓	X	X	X	1
Coyne [44]	Family carers calling a dementia telephone helpline in New Jersey	342	34%	Own questions	Any abuse	Time caring	Physical: 12%	X	X	X	✓	X	X	X	1
Pillemer [45]	Older people diagnosed with dementia in last 6 months and carers were recruited from dementia screening program and clinicians in USA	236	60%	Own questions	Any abuse	Time caring	Physical: 5.9%	✓	X	X	X	X	X	X	1
Sasaki [46]	Disabled older people and their co-resident carer, recruited from home nursing service in Kyoto	412	70%	CTS items	Any abuse	6 months	Any: 35%	X	X	X	✓	X	X	X	1
Grafstrom [47]	People aged 74+, living in institution or at home in Stockholm and carers	219	76%	Qualitative interview	Any abuse	Not stated	Any: 12%	X	X	X	X	X	X	X	0

Table 4. Studies using third party measures of abuse

Study	Sample	n	Response rate	Abuse measure	Abuse prevalence % (95% CI)	Validity questions (see method)							Sum
						1	2	3	4	5	6	7	
Shugarman [31]	Referrals aged 60+ in private households with informal carer, to Michigan long-term care services	701	100%	MDS abuse screen	4.7 (3.1–6.3)	✓	✓	✓	✓	X	✓	✓	6
Cooper [30]	Probability sample aged >65 receiving health or social community services in 11 countries	3,881	80%	MDS abuse screen	4.6 (3.9–5.3)	✓	✓	✓	✓	X	✓	X	5
Fulmer [33]	All attendees at random sample of adult day health care programs (for people needing ≥3 h of health care a week) in USA	336	93%	Own measure of physical abuse	12.8	✓	✓	✓	✓	X	✓	X	5
Bond [48]	People aged 60+ referred to Office of the Public Trustee, Manitoba, Canada, 1995–96	354	100%	Manager reported financial abuse	21.5	✓	✓	✓	X	X	X	✓	4
Cham [49]	Singapore Emergency department attendees aged >65 + non-accidental trauma or reporting cruel acts	62,826	100%	Staff opinion—physical abuse	0.03% (incidence)	✓	✓	✓	X	X	X	✓	4
Lachs [50]	APS reports (1981–92) on probability sample of elders in New Haven, Connecticut	2,812	100%	Reported case	2.0 (1.5–2.5)	✓	✓	✓	X	X	X	✓	✓
Vida [51]	Consecutive referrals aged 60+ to inpatients and outpatients geriatric psychiatry division in Canada	126	100%	Staff opinion (physical, psychological, financial abuse, neglect)	16(9.6–22.4)%	✓	✓	✓	X	X	X	✓	4
Kurrle [52]	Consecutive referrals aged 65+ to four Aged Care Assessment Teams (ACAT) in Australia	5,246	n/a		1.2(0.4–2.0)%	✓	✓	✓	X	X	X	X	3
Livermore [53]	Consecutive referrals aged 65+ to New South Wales ACAT	1,777	100%		5.4 (4.3–6.5)%	✓	✓	✓	X	X	X	X	3
National Center on Elder abuse [34]	People aged 60+ living in private households from random sample of 20 US counties in 1996	USA older population (census)	n/a	APS cases and sentinel reporting	1% of US 60+ population	✓	X	X	X	X	X	✓	2
Iecovich [54]	♂ aged 65+ and ♀ aged 60+ referred to Israel social services after social worker training in 2002	24,800	n/a	Social worker report abuse or neglect	0.5 (0.41–0.59)%	✓	X	X	X	X	X	X	1
Zhu [55]	Forensic autopsies aged 65+ in Osaka 1994–98	121	100%	Pathologist report abuse	11%	✓	X	X	X	X	X	X	1

APS, Adult protective services; ACAT, Aged Care Assessment Teams; MDS, minimum dataset

0.2% for neglect occurring ≥ 10 times, 1.2% for physical and 1.4% for financial abuse. About 6.7% of participants in Finland had experienced abuse or neglect after their retirement age [14]. Those living in long-term care settings with moderate or severe dementia were excluded, so the sample was unrepresentative of the target population.

Summary of best evidence:

- Almost 6.3% of older people reported significant abuse in the last month [5] and 5.6% of the couples reported that their relationship had been physically violent in the last year [6].

Asking dependent older people about abuse

Three studies in this category [15–17] employed abuse measures with established reliability and validity. Wang [15] used the Psychological Elder Abuse Scale, reporting satisfactory content validity, inter-rater and test–retest reliability. They defined caseness as endorsing $\geq 10/32$ items, and reported psychological abuse in 22.6% (16.7–28.5) of people interviewed. Beach [16] interviewed disabled older people and their carers using an instrument adapted from the CTS. Internal reliability was adequate ($\alpha = 0.69$). Concurrent validity was tested by comparing care recipient and carer reports. There was 71% agreement ($r = 0.30$) (Beach, personal communication). Our group has previously reported convergent and discriminant validity of this measure [19]. Items were scored on a 5-item Likert scale, with caseness defined as a score of ≥ 2 (sometimes occurs) for any item. About 25.7% (20.5–31.0) of care recipients reported any abuse, 1% reported physical abuse and the remainder psychological abuse. Fulmer [17] recruited older people attending emergency departments. An expert team used the Elder Abuse Assessment Instrument to diagnose neglect in 18% (12.1–23.9) of participants (Table 2).

Two studies using measures with untested psychometric properties recruited participants from home-care service lists. In Canada, Pittaway and Westhues [20] found that 14% of older people had experienced ≥ 10 episodes of verbal abuse in the last year; 6% had experienced financial abuse; 14% neglect and 4% physical or sexual abuse since the age of 55. Buri [21] recruited participants from the Medicaid Waver program (which has dependency and financial need criteria): wherein 2% reported physical abuse, 18% financial abuse, 7% neglect, 1% psychological and 21% (18.5–23.5) any abuse.

Summary of best evidence:

- A quarter of the dependent older people reported significant levels of psychological abuse and 1% reported physical abuse. A fifth of the older people presenting to an emergency department were experiencing neglect. Studies using unvalidated scales have reported rates of 6% and 18% for financial abuse.

Clinical populations of older people

Two studies screened people from Spanish primary care for physical, sexual, psychological abuse or neglect, and

found rates of 53% (46–60) [22] and 11.9% (7.6–16.2), respectively [23]. Neither study used a valid or reliable measure or recruited samples matching the target population (Table 2).

Reports of abuse by family carers

Family carers have been asked about physical, verbal, psychological abuse and neglect. Only Paveza *et al.* [24] used a valid and reliable abuse measure. They found that 5% (1.9–8.1) of carers reported physical abuse in the year since diagnosis on the severe violence subscale of the CTS. In studies with well-defined target populations, 11–20% of family carers reported physical abuse and 37–55% reported any abuse meeting the Pillemer criteria (Table 3). Pot [25] reported that abuse scores were not correlated with the Eysenk personality Questionnaire lie scale as an indicator of validity.

Surveys of professional carers

Wang [18] conducted the only survey asking professional carers about abuse that used a valid and reliable measure. The Caregiver Psychological Elder Abuse Scale has satisfactory content validity, test–retest reliability and internal consistency. A random sample of 114 nurses and care attendants working in Taiwanese long-term care facilities for ≥ 6 months were interviewed. About 16.1% had witnessed significant abuse, and 99% some abuse. The authors described a well-defined target population, used probability sampling, a valid and reliable instrument and standardised data collection methods (validity score = 5).

Pillemer and Moore [26] approached intermediate care and nursing homes in New Hampshire with ≥ 15 beds and 54% participated. They found no significant differences between participating and non-participating homes in terms of ownership status (profit or not for profit) and size. They adapted the CTS by adding questions, but did not report psychometric properties for the scale. About 85% ($n = 577$) of randomly selected nurses and nursing aids participated. Almost 36% reported observing and 10% reported committing physical abuse in the last year, most frequently with excessive use of restraints. Most staff (81%) had observed and 40% had committed ≥ 1 psychologically abusive acts over this time period. The target population for this study was well-defined; the authors used probability sampling, standardised data collection methods and although the response rate was $< 80\%$, participating and non-participating homes' characteristics were comparable (validity score = 4).

Jogerst *et al.* [27] asked Iowan Medicare-certified nursing homes about physical, financial, neglect or sexual abuse reported to them in the last year, in a postal questionnaire study. The response rate was 87% (355 homes). Over a year, for every 1,000 residents, 20.7 incidents were reported to the staff, and 18.4 to state authorities of which 29% were substantiated. The authors recruited $> 80\%$ of a well-defined target population, but did not use a standard measure of abuse (validity score = 3).

C. Cooper *et al.*

Saveman [28] interviewed nursing staff working with older people living at home, in sheltered housing, or group dwelling or nursing homes in urban Sweden. All nursing aides and nurses within the well-defined target population were approached; the response rate was 78%. The authors developed an instrument to measure abuse but did not report psychometric properties (validity score = 3). Eleven per cent of professionals interviewed knew of abuse in the last year (physical, psychological, financial, sexual abuse or neglect), and 2% admitted to abuse. Staff working in nursing homes were more likely to have witnessed abuse. Finally, Goergen [29] found that 79% of 80 nursing home staff from a convenience sample of German nursing homes had witnessed ≥ 1 physical, verbal or neglect incident in the last year in a study fulfilling none of the validity criteria we used (score = 0).

Summary of best evidence:

- About 16% of long-term care staff reported committing significant psychological abuse in the only study using a valid and reliable measure.
- About 10% of staff admitted physical abuse and 40% any psychologically abusive act in the last year in a study with a well-defined representative population and standardised data collection methods.
- Over 80% of nursing home staff have observed abuse occurring, but rates of abuse actually reported to home management were low (2%).

Studies using third party measures of abuse

Two studies [30, 31] used the Minimum Dataset Home Care (MDS-HC) abuse screen, which includes indicators of severe neglect, physical abuse, demonstrating fear of a carer and physical restraint. Reliability, but not validity, of the MDS-HC is reported [32]. In the first study, case managers completed the MDS-HC for people seeking home and community-based services in Michigan from two programs with functional eligibility criteria, one of which was only accessible by people below a maximum income level [31]. Cooper *et al.* [30] also reported results from MDS-HC assessments by trained interviewers who were research assistants or home-care personnel for people receiving health or social services in 11 European countries; in some areas community services were provided to people living in residential homes, although most participants lived in private homes.

Fulmer *et al.* [33] reported the prevalence of abuse among people attending day health care programs in New York. The authors devised a list of physical indicators of abuse, e.g. unexplained bruises and frequent injuries, and whether the person appeared apprehensive. They reported internal consistency for the scale ($\alpha = 0.60$).

The other studies used reports of abuse from agencies or staff reports of abuse, rather than a standardised measure of abuse (Table 4).

Summary of best evidence:

- About 5% of the people referred to care services screened positive for elder abuse in two studies using a reliable

instrument [30,31]. In a day care sample, 3.6% screened positive for physical abuse.

- Less than 1% of older people were reported to the Adult Protective Services (APS) or were identified by sentinels in the US national incidence survey.

Discussion

The range of prevalence of abuse reported by general population studies was wide (3.2–27.5%), possibly reflecting true variation in abuse rates across cultures as well as the differences in defining and measuring abuse. Over 6% of the older general population reported abuse in the last month. In addition, 5% of older couples reported that their relationship had been physically violent in the last year, using measures with known psychometric properties. These rates are probably an underestimate, as some people may be reluctant to report abuse.

Nearly a quarter of older people dependent on carers reported significant psychological abuse, and a fifth reported neglect. Over a third of family carers report perpetrating significant abuse. These studies indicate that vulnerable old people are at high risk of abuse and that they and their family carers are frequently willing to report it. The act of abuse does not imply intent, and in many cases the carers may not have viewed their own actions in this light. Abusive acts reported may reflect lifelong verbally or physically abusive relationships, or onset of abuse in response to carer stress or challenging care recipient behaviours. Studies using observed abuse measures in vulnerable older people report much lower rates (5%), suggesting that they are probably only detecting the most serious abuse, and this is supported by a study that compared objective and family carer reports of abuse in older people [19]. This probably reflects the isolated and secretive nature of the abusive act. Our results suggest that routinely asking vulnerable older people and their family carers about abuse will often lead to its detection, and is more sensitive than using observer measures. Nonetheless these may have a role for detecting serious abuse in non-verbal patients or in those too afraid to report it.

One in six professional carers report committing psychological abuse and one in ten physical abuse. Over 80% of care home staff had observed abuse, suggesting that care home staff might have been denying any abusive acts. We speculate that most care staff are able to cope without abusing as unlike family carers they have a limited number of hours for caring. There may be a small but worrying proportion of professional carers who sadistically misuse their power over vulnerable individuals in their care, and this might also explain the high number of staff who have observed abuse. Very few cases of abuse were reported to home staff [27] or the APS [34]. We suggest that greater efforts to address institutional abuse through improved detection strategies such as whistle-blowing schemes are urgently needed.

Limitations

Measures for which validity and reliability had not been demonstrated may have had adequate properties that have not yet been tested. We accepted all types of validity including content validity. Even so, only seven studies met our criteria for a valid measure. We suggest that consensus on methods of validation for abuse and neglect scales as well as validation studies are needed. Carers were not asked about financial abuse, and may be less willing to report this type of abuse. Some studies sampled all people in narrowly defined populations and thus had samples representative of these target populations, while others recruited general population cohorts that were fairly representative but did not meet the stringent criteria of an 80% response rate. There are currently no measures of financial abuse or neglect with established psychometric properties and we have therefore not been able to report robust estimates for this.

Conclusions

More than 6% of the older general population, a quarter of vulnerable adults and a third of family carers report being involved in significant abuse, but only a small proportion of this is currently known to protective services. One in six professional carers reported committing abusive acts but over four-fifths observed it. Vulnerable elders and family and to a lesser extent professional carers are willing to report abuse and should be asked about it routinely. Valid, reliable measures as well as consensus on what constitutes an adequate standard for validity of abuse measures are needed.

Key points

- More than 6% of the older general population, a quarter of vulnerable adults and a third of family carers report being involved in significant abuse.
- Valid, reliable measures as well as consensus on what constitutes an adequate standard for validity of abuse measures are needed.
- Only a small proportion of elder abuse is currently known to protective services. We suggest that routinely asking older people and their carers about abuse, and detection strategies in care homes including whistle-blowing could help improve reporting.

Conflict of interest

Two authors are also the authors of one of the reviewed papers. None of the authors have a financial conflict of interest.

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Supplementary data

Supplementary data for this article are available online at <http://ageing.oxfordjournals.org>.

References

(Due to the large number of references, only 40 are listed below and are represented by boldtype throughout the text. The full list can be found in the supplementary data online, on the journal website <http://www.ageing.oxfordjournals.org> as Appendix 2.)

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C. Cooper et al.

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