Abuse of Older Persons With Cognitive and Physical Impairments: Comparing Percentages Across Informants and Operational Definitions

Abstract

This study compared percentages of elder abuse reported by older adults and their family caregivers, using reports from attending medical professionals to triangulate the reports. Percentages were also compared using different criteria proposed in the literature. In total, 1,002 older Chinese aged 55 years or above and their primary family caregivers were recruited from three leading public hospitals in Guangdong, People's Republic of China. Caregivers and care recipients were separately interviewed and provided information on their demographic characteristics and past year percentages of abuse. A clinical team including a chief physician, two attending physicians, three resident physicians, and two senior nurses provided observer measures through reviewing the medical records and their daily observations. Regardless of the informants and operational definitions used, caregiver neglect was the most commonly reported (35.4% to 65.0%), followed by psychological abuse (11.1% to 51.1%), financial exploitation (17.9% to 40.8%), and physical abuse (0.8% to 2.2%). This study found huge variations in percentages of elder abuse by different informants and operational definitions. Depending on the types of abuse concerned, different informants should be consulted to yield more reliable estimates.

Keywords

elder abuse, domestic violence, disclosure of domestic violence

Introduction

Elder abuse is becoming an urgent social problem worldwide in light of rapid population aging in many countries. Study of the issue and its prevalence, however, proves challenging due to the lack of consensus among the research community on definitions and methodologies.

Lack of Uniform Definitions

One limiting factor in the study of elder abuse is the lack of uniform definitions. For example, the U.K. Charity "Action on Elder Abuse (AEA)" defines elder abuse as "a single or repeated act or lack of appropriate action, occurring within any relationship where there is an expectation of trust that causes harm or dis- tress to an older person" (Council of Europe, 1992). This definition was adopted by the World Health Organization (WHO) and the International Network for the Prevention of Elder Abuse (INPEA; WHO/INPEA, 2002), and was also mentioned in the "Toronto Declaration" (2002). Later on, the definition formulated by the U.S. Academy of Sciences (National Research Council, 2003, p. 3) shares the concept that the abuser and the victim should be in a relationship of trust but adds the element of vulnerability (which is adopted in the present study). The practical implication of differences in definitions such as this is best illustrated by a recent report, where significant discrepancies emerged in its findings of abuse rates when different definitions were adopted (13.9% com- pared with 25.8%; Dong, 2014). Different definitions used in various studies hinder comparisons among findings, accurate interpretation of results, and drawing of meaningful conclusions. This might be a major barrier for developing and tailoring effective intervention and prevention programs. A more standardized and consistent definition of elder abuse is needed for researchers, practitioners, and policy makers to estimate the extent of this social problem and to formulate useful treatment

strategies and policies.

Source of Information and Reporting Methods

Percentages of elder abuse vary depending on the use of informants. Studies using observers as informants generate extremely low rates (5.0% in Cooper, Selwood, & Livingston, 2008), implying that they probably only capture the most serious abuse that leave behind observable symptoms. This is supported by a study comparing sensitivity of caregiver reports and observer measurement of abuse in dependent older persons (Cooper et al., 2008). In domestic settings, reports by care recipients yield higher rates than reports by caregivers for both physical (26.1% vs. 17.2% in VandeWeerd, Paveza, Walsh, & Corvin, 2013) and psychological abuse (78.4% vs. 60.1% in VandeWeerd & Paveza, 2008). In institutional settings, care workers and older residents are exposed to a cluster of unique environmental characteristics that make abuse cases different from those in the community. The fact that care workers reporting abuse may face adverse employment, social, and legal consequences poses a major barrier to detection of abuse in care homes, which leads to a low reporting rates (Cooper, Dow, Hay, Livingston, & Livingston, 2013). Inconsistency in the use of informants makes it difficult to identify the true extent of the problem.

Source of Information and Assessment Methods

Another significant impediment is the adoption of different assessment methods by different studies. Although researchers have been aware that reliability and validity of an instrument are important in analyzing the meaningfulness, usefulness, and appropriateness of a study, very few studies on elder abuse have adopted instruments with established psychometric properties (Yan, Chan, & Tiwari, 2015). A recent review found that studies applying instruments with unknown psychometric properties

tend to generate lower rates than those adopting reliable and valid measuring methods, with 15.4% to 62.3% versus 3.5% to 43.8% for psychological and 1.6% to 78.4% versus 1.5% to 11.9% for physical abuse (Fang & Yan, 2018). Instruments for which reliability and validity are not shown may have adequate psychometric properties that have not yet been tested. Consensus on validation methods for elder abuse instruments is needed to improve the quality of instruments for elder abuse. This is particularly important for intervention studies, where estimation of abuse severities and improvement of treatment outcomes are prominent goals.

Situation in China

Elder abuse should be interpreted within the cultural context where it occurs. With increasing exposure to Western values, one can no longer assume that traditional value of filial piety, which prescribes adult children's obligation to obey and support their parents, can protect older Chinese from maltreatment (Yan & Tang, 2003). In fact, available studies found that elder abuse is common in older Chinese community-dwellers (20.0%-40.0% Dong, Beck, & Simon, 2010; Wu et al., 2012; Yan & Tang, 2001). Older Chinese with com- promised cognitive and physical abilities are particularly vulnerable to abuse by their family caregivers (42.3%-62.3% in Yan, 2014; Yan & Kwok, 2011), probably due to their heavy reliance on caregiver support and isolation from social networks. Both older Chinese and their family caregivers, however, are reluctant to report abuse. Some cultural values such as desire to protect family reputation and mistrust with third-party intervention may account for this tendency (Yan, 2015). Furthermore, although the Law of the People's Republic of China on Protection of the Rights and Interests of the Elderly (Standing Committee of the National People's Congress, 2012) has specified that elderly should be cared for mainly by their family (Article 10) and that perpetrators of elder maltreatment should

be punished according to relevant regulations (Article 46), it does not further emphasize mandatory reporting of elder abuse.

To acquire a deeper understanding of the limitations brought on by the use of different definitions and methodologies, the present study compared the different percentages yielded from data obtained from both report-based and observation-based sources and from the application of different definitional criteria.

Method

Approved by the authors' affiliated university, this study was conducted between September 2015 and February 2016. Using convenience sampling, 1,200 older (aged 55 years or above) community-dwelling Chinese adults with mild to moderate levels of cognitive (score of 0.5-2 on the Clinical Dementia Rating Scale or 9-27 on the Mini-Mental State Examination [MMSE]) and/or physical impairment (assessment made by physicians as presented on the medical reports) and their primary family caregivers con- secutively presenting at the geriatric and neurological outpatient departments of three Grade A public hospitals in Guangdong Province of the People's Republic of China were referred by nurses at the registration. Dyads with an older person having severe dementia (MMSE < 9) or other psychiatric symptoms were excluded.

A total of 1,002 dyads gave written consent after being informed thoroughly of the purpose of our study as well as related confidentiality and ethical issues. For care recipients (n = 6) lacking the capacity to give consent, their caregivers were asked whether they believed that the care recipients would have given consent if they had the capacity to do so and if so, the care recipient would be included. This study yielded a response rate of 83.5%. 198 dyads declined to take part due to illiteracy or time constraints. There were no significant differences between participatory and

nonparticipatory older per- sons in terms of gender ($\chi 2 = 1.793$, $p = .818$) and age ($t = 1.290$, $p = .840$). Currently, 98,128 older persons with impairment are dwelling in Guangdong Province (National Bureau of Statistics of China, 2015), thus our sample accounts for approximately 1.02% of this population.

Our clinical team comprises (a) a chief physician specialized in geriatrics, (b) two attending physicians specializing in elderly mental health, (c) three resident physicians specializing in geriatrics, and (d) two senior nurses with years of experiences working with older patients.

Data collection was completed by research assistants and the clinical team. Three research assistants with postgraduate education in medicine carried out face-to-face individual interviews with care recipients in a private room at the relevant hospital in Mandarin, Cantonese, or Chiu Chow dialect. Caregivers were asked to complete a questionnaire in a different room. Our clinical team assessed each case based on their own observations and interactions with the dyad, as well as a review of the care recipient's medical records and purchase account with the hospital.

Measurements

Demographic data collected include the care recipient's age, gender, amount of monthly pension received, and living arrangement, as well as the caregiver's age, gender, and relationship to the care recipient.

Health-related data of the older persons were collected from medical reports. Mild to moderate cognitive impairment was defined as diagnosis of mild cognitive impairment (MCI) or mild to moderate Alzheimer's disease, vascular dementia, dementia with Lewy bodies, and Parkinson's disease. Physical impairment refers to physical disability that restricts any major life activity, sensory impairment, poliomyelitis, or cerebral palsy. Chronic conditions assessed included chronic

respiratory disease, cardio-cerebrovascular disease, digestive system disease, anemia, urological disease, endocrine and metabolic disease, motor system disease, and tumor.

Assessment of abuse. Report-based assessment was facilitated by a 37-item questionnaire. Psychological and physical abuse were assessed using the Psychological Aggression (eighth items) and Physical Assaults (12 items) subscales, respectively, from the Revised Conflict Tactic Scale (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). The Chinese version has demonstrated good internal reliability, with an alpha ranging from .64 to .79 for the psychological aggression and .69 to .86 for the physical assault sub- scale (Yan, 2014; Yan & Kwok, 2011). Financial exploitation was assessed using a 14-item system adapted from the Old Adult Financial Exploitation Measure (OAFEM; internal consistency alpha = .96; Conrad, Iris, Ridings, Fairman, & Rosen, 2008). Caregiver neglect was assessed using three items developed by a previous study (Pillemer & Finkelhor, 1988). Satisfactory interrater reliability among the three research assistants for these abuse instruments were obtained prior to data collection, with Intraclass Correlation Coefficient (ICC) ranging from .67 to .83.

For observation-based assessment, our clinical team evaluated risk of abuse based on general observation of the older persons (clothing, hygiene, nutrition, and skin integrity) and their interaction with their family caregivers, as well as examination of their medical records and hospital purchase account. Indicators of caregiver neglect, physical abuse, and financial exploitation were adapted from the Elder Abuse Instrument (EAI; Fulmer, 2003), with internal reliability (alpha = .84) and test–retest reliability (ICC = .83) recorded (Fulmer, 2003). Indicators of psychological abuse were developed from CTS2 (Straus et al., 1996). Adequate interrater reliability among eight members of the clinical team for these abuse indicators was obtained before data

collection commenced, with ICC of .64 to .82 documented.

Our clinical team and all research assistants had received manual-based training on elder abuse prior to data collection. Examples of self-reported and observation-based elder abuse indicators are listed in Tables 2 and 3.

Scope of Definitions

Data obtained through self-reports were tested by applying different definitions and cutoff points. For psychological abuse, the cutoff points were set at an affirmative response to (a) any item on the CTS2 (lenient Yan, 2014) and (b) three or more items on the CTS2 (restrictive; Beach et al., 2005). For caregiver neglect, two definitions were applied: (a) "unmet needs and deprivation of services" (lenient; Pillemer & Finkelhor, 1988) and (b) "unmet needs and deprivation of services by a co-residing family caregiver" (restrictive; Dong, 2014).

For financial exploitation, cutoff points were set at an affirmative response to (a) any of the 14 items stipulated by the assessment system (lenient; Conrad et al., 2008) and (b) any of the 11 items stipulated, excluding certain items that might be less likely to be deemed as financial exploitation: preventing the older person from spending his or her own money, feeling entitled to use the older person's money, and pressuring the older person to buy something (restrictive; Dong, 2014). For physical abuse, due to the lack of a more restrictive definition in existing literature, only the Pillemer criteria were applied, that is, any positive response to the CTS2 (Pillemer & Finkelhor, 1988). Consistent with previous studies (Cooper et al., 2006), our clinical team followed the "any indicator approach" in their assessment.

Results

Participants

All care recipients were older adults aged between 55 and 90 years (M = 68.72,

SD = 8.72). The majority of them were male (55.6%, *n* = 557) and were receiving monthly pension (61.5%, *n* = 616). All of them were suffering from some form of cognitive (79.8%, *n* = 800) or physical impairment (69.7%, *n* = 698). Most care recipients were living with their family caregivers (91.2%, *n* = 914). Caregivers were aged between 18 and 82 years (*M* = 47.24, *SD* = 11.99). Approximately half of them were male (52.6%, *n* = 527) and were at the time substance users (49.2%, *n* = 493). Most of them were adult children (59.4%, *n* = 595) or spouses (19.5%, *n* = 195) of the care recipients, with the rest being other relatives (21.2%, *n* = 212) (Table 1).

Different Methodologies

Data were collected through self-reports and observation and then tested with different definitional restrictiveness and assessment instruments (Tables 2 and 3). Reports by care recipients generated higher percentages than reports by caregivers for all forms of abuse. Higher percentages were also observed for all abuse subtypes when lenient instead of restrictive definitions were applied. Psychometric properties for instruments used were reported.

Psychometric properties of self-reported instruments. Regardless of informants, psychometric properties of self-reported abuse instruments were recorded. Good internal reliability was reported for instruments measuring psychological abuse (alpha = .804 for care recipient and .763 for caregiver reports), physical abuse (alpha = .942 for care recipient and .921 for caregiver reports), caregiver neglect (alpha = .776 for care recipient and .790 for caregiver reports), and financial exploitation (alpha = .727 for care recipient and .743 for caregiver reports). A moderate to high level of consistency between care recipient and caregiver reports was observed for items on respective abuse instruments, with an ICC ranging from .631 to .852 for

psychological abuse,

.799 to .923 for physical abuse, .846 to .886 for caregiver neglect, and .739 to .936 for financial exploitation, suggesting desirable interrater reliability.

Using caregiver reports, the smallest within-factor correlations for psychological abuse, physical abuse, caregiver neglect, and financial exploitation subscales ranged from .398 to .599 (all $p < .01$). Using care recipient report, similarly, the smallest within-factor correlations for all four abuse subscales ranged from .353 to .590 (all $p < .01$). All these correlations were significantly different from zero, which supported convergent validity of the above subscales.

Abuse percentages using self-reports. For psychological abuse, the application of lenient and restrictive definitions to care recipient reports yielded the percent- ages of 51.1% and 16.5% respectively, compared with 42.8% and 11.1% when applied to caregiver reports. For caregiver neglect, the application of lenient and restrictive definitions to care recipient reports yielded the percentages for 65% and 56.6%, respectively, compared with 50.2% and 42.2% when applied to caregiver reports. For financial exploitation, the application of lenient and restrictive definitions to care recipient reports yielded the percentages of 40.8% and 39.4% respectively, compared with 34.2% and 32.3% when applied to caregiver reports. For physical abuse, where only the Pillemer criteria were applied, the percentages of 1.2% (care recipient reports) and 1.0% (caregiver reports) were observed.

Abuse percentages using observation. Observation-based instruments generated different results from self-reports. In comparison, lower percentages for caregiver neglect (35.7%, $n = 358$), psychological abuse (15.3%, $n = 153$), and financial

exploitation (17.9%, *n* = 179) but a higher percentage for physical abuse (2.2%, *n* = 22) were documented (Table 2).

Psychometric properties of observation-based instruments. Satisfactory internal reliability for physical abuse (alpha = .861), psychological abuse (alpha = .661), caregiver neglect (alpha = .658), and financial exploitation (alpha = .836) subscales was recorded. The smallest within-factor correlations for all four abuse subscales range from .468 to .542 (all $p < .01$). All these correlations are significantly different from zero, suggested that convergent validity of the above subscales is supported.

Discussion

This study compared percentages of abuse given by older person, family care-giver, and a clinical team comprising experienced health care practitioners. Abuse was found to be common in this sample composed of older Chinese with mild to moderate cognitive impairment, with caregiver neglect (35.4%-65%) being the most common, followed by psychological abuse (11.1%-51.1%), financial exploitation (17.9%-40.8%), and physical abuse (0.8%-2.2%). Compared with studies conducted with other older Asians with cognitive or physical impairment, this study yielded lower percentage for psychological (62.3% in Yan & Kwok, 2011) and physical abuse (18.0% in Yan & Kwok, 2011) but higher percentages for caregiver neglect (15.2% in Lee & Kolomer, 2005) and financial exploitation (13.6% in Sasaki et al., 2007).

The higher prevalence for caregiver neglect may be associated with several reasons. First, Chinese women who have traditionally provided primary care to older family members have increasingly joined the workforce in recent years (Kadoya & Yin, 2014), potentially reducing their ability to pro- vide hands-on care. It is also

possible that the younger generation interprets traditional values of filial piety differently from the older generation and con- siders family caregiving as an option rather than an absolute obligation (Cheung & Yu, 2009). For instance, some adult children might choose to practice filial obligation by paying for institutional care or hiring paid domes- tic helpers for their parents. However, this is considered by some older persons as neglectful behaviors (Yan et al., 2015).

Estimates of financial exploitation greatly varied depending on the source of information. High percentages given by the older persons and family care- givers suggested that financial abuse frequently occur in the household. This is partially attributed to older Chinese' tolerance toward such exploitation, as many of them had been schooled in traditional inheritance culture, which entitles adult children to inherit and appropriate all their wealth (Yan et al., 2015). In comparison, the lower percentage generated from the clinical team's observation may be due to the use of indicators limited to those targeting exploitative behaviors occurring in medical service settings, which is relatively difficult to detect.

Physical abuse was found to be the least common in this sample, possibly because such abuse tends to leave behind physical evidence and may also lead to social condemnation (Chen & Shi, 2013). Although data obtained through observation yielded lower percentages for abuse that lacks observable evidence, such as caregiver neglect, psychological abuse, and financial exploitation, they did return a higher percentage for physical abuse, where assessment depends largely on observable physical evidence that is less prone to subjective bias.

As mentioned in the "Results" section above, higher percentages were yielded when lenient rather than when restrictive definitions were applied, which demonstrates the importance of establishing clear and uniform operational definitions.

Similarly, data obtained from care recipients generated significantly higher percentages than those obtained from caregivers. This may be the result of caregivers being reluctant to report abuse out of fear of denunciations and damage to family reputation.

Limitations

A number of limiting factors should be noted when interpreting the results, namely, (a) the use of convenience sampling limits the generalizability of our findings; (b) using cross-sectional design makes it impossible to track the progress of elder abuse over time or to differentiate dyadic relationships that were already abusive at a premorbid stage and those that have become abusive after the onset of cognitive and physical impairment; (c) our interview questions were strictly guided by the questionnaire prepared in advance, thus may not cover every type of abusive behavior; (d) although our result showed varied percentages of abuse depending on the use of different definitions and methodologies, we did not further examine which factor has more significant effects on the results; (e) using care recipients with cognitive impairment as informants might cast doubt over the reliability of research results; however, the high level of agreement between reports given by caregivers and care recipients further suggests that bias caused by cognitive impairment is of less concern; (f) finally, although good interrater reliability was found regarding the abuse indicators observed, potential differences in terms of the duration of observation among observers might affect the results reported. Future studies are required to address these limitations.

Implications

The results shed light on a number of important issues that demand attention.

Variation in abuse estimates resulting from the adoption of different

methodologies illustrates the need for more uniform operational definitions and assessment methods, as well as the importance of acquiring data from multiple sources.

Furthermore, in view of the high percentages of abuse among older Chinese with cognitive or physical impairment, more sensitive screening tools and effective intervention strategies should be developed targeting this specific vulnerable group. Considering the common phenomenon of care- giver and care recipient coresidence, family mediation programs that improve dyadic communication may play a role in reducing conflicts and abuse. Given that impaired older persons might lack the capacity necessary to make financial decision, guardianship may be considered as the last resort in response to the most severe financial exploitation cases, such as family members disputing custody or adult children trying to claim inheritances prematurely or forcing the older person to make new wills (Rabiner, O'Keeffe, & Brown, 2006).

The lower rates yielded from observation-based data also raised the question of clinical staff relying on the misguided assumption that only purposeful behaviors by immoral abusers constitute abuse, which may lead to oversight, especially in cases involving more subtle forms of abuse. Due to the isolated nature of abusive behaviors, observation measures may be less sensitive than self-reports. However, such measures may be useful for detecting serious mistreatment in nonverbal participants or in those afraid of reporting it.

Our analyses also suggest a general lack of knowledge on elder abuse among older adults and their caregivers. Education on the subject will be most beneficial to this demographic, as well as clinical staff and community- based elderly service providers, and will help promote timely detection and intervention. A nationwide mandatory reporting system should be well established and strictly implemented as a

means of facilitating timely investigation especially in a medical services setting with a large proportion of frail older persons.

Conclusion

Our study has uncovered significant deviations in research results when different methodologies are used. It is important to assess the true extent of the issue of elder abuse and to formulate and develop clear and uniform definitions and assessment methods and acquire data through both self-reports and observation. It is our hope that future studies utilizing longitudinal design and an even more representative sample can help resolve these issues.

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Table 1. Sample Characteristics (N = 1,002).

	mean (*SD*); *n* (%)
Caregiver characteristics	
Age	47.24 (11.99)
Gender	
Female	475 (47.4%)
Male	527 (52.6%)
Kinship to the older person	
Spouse	195 (19.5%)
Adult child	595 (59.4%)
Other family member	212 (21.2%)
Levels of education	
Primary school or below	510 (50.9%)
Secondary school	456 (45.5%)
Tertiary education	36 (3.6%)
Care recipient's characteristics	
Age	68.72 (8.72)
Gender	
Female	445 (44.4%)
Male	557 (55.6%)
Levels of education	
Primary school or below	888 (88.6%)
Secondary school	110 (11%)
Tertiary education	4 (0.4%)
Chronic illness	838 (83.6%)
Physical disabilities according to medical records	698 (69.7%)
Diagnosis of dementia according to medical records	800 (79.8%)
None/little (27 □MMSE □30 or CDR = 0 or 0.5)	202 (20.2%)
Mild (21 □MMSE □26 or CDR = 1)	188 (18.8)

Moderate (9 □MMSE □20 or CDR = 2)	612 (61.2%)
Living with the family caregiver	914 (91.2%)

Note. MMSE = Mini-Mental State Examination; CDR = Clinical Dementia Rating.

Table 2. Rates of Self-Reported Abuse Subtypes by Different Definitional Restrictiveness.

	CR Report	CG Report	CR/CG Mutual Report
Caregiver neglect			
Deprivation of help with washing [.886]	249 (24.9%)	204 (30.4%)	180 (18.0%)
Not prepared meals [.886]	471 (47.0%)	374 (37.4%)	337 (33.6%)
Deprivation of help with toileting [.846]	663 (66.3%)	450 (44.9%)	316 (31.5%)
Caregiver neglect—Restrictive (any unmet needs and coresidence)	567 (56.6%)	423 (42.2%)	398 (39.7%)
Caregiver neglect—Lenient (any unmet needs)	651 (65.0%)	503 (50.2%)	477 (47.6%)
Psychological abuse			
Insulted or swore at the older person [.724]	147 (14.7%)	73 (7.3%)	63 (6.3%)
Shouted or yelled at the older person [.852]	498 (49.7%)	423 (42.2%)	388 (38.7%)
Stomped out of the room during disagreements [.819]	178 (17.8%)	134 (13.4%)	118 (11.8%)
Said something to spite the older person [.831]	115 (11.5%)	93 (9.3%)	81 (8.1%)
Called the older person ugly or fat [.840]	91 (9.1%)	81 (8.1%)	69 (6.9%)
Destroyed something belonging to the older person [.631]	20 (2.0%)	12 (1.2%)	8 (0.8%)
Accused the older person as a lousy family member [.755]	147 (14.7%)	105 (10.5%)	86 (8.6%)
Threatened to hit or throw something at the older person [.817]	9 (0.9%)	5 (0.5%)	4 (0.4%)
Psychological abuse—Restrictive (three or more positive items)	165 (16.5%)	111 (11.1%)	97 (9.7%)
Psychological abuse—Lenient (any positive item)	512 (51.1%)	429 (42.8%)	398 (39.7%)

Physical abuse			
Threw something at the older person that could hurt [.857]	5 (0.5%)	3 (0.3%)	2 (0.2%)
Twisted hair or arms [.799]	6 (0.6%)	3 (0.3%)	2 (0.2%)
Pushed or shoved [.888]	7 (0.7%)	4 (0.4%)	4 (0.4%)
Grabbed [.845]	10 (1.0%)	8 (0.8%)	7 (0.7%)
Slapped [.923]	4 (0.4%)	3 (0.3%)	3 (0.3%)
Used a knife [.889]	3 (0.3%)	2 (0.2%)	1 (0.1%)
Punched or hit the older person with something that could hurt [.842]	5 (0.5%)	3 (0.3%)	2 (0.2%)
Chocked [.889]	3 (0.3%)	2 (0.2%)	1 (0.1%)
Slammed against a wall [.903]	5 (0.5%)	4 (0.4%)	2 (0.2%)
Beat or hit [.799]	6 (0.6%)	3 (0.3%)	2 (0.2%)
Burned or scalded on purpose [.800]	2 (0.2%)	1 (0.1%)	1 (0.1%)
Kicked [.909]	7 (0.7%)	5 (0.5%)	3 (0.3%)
Physical abuse (any positive item)	12 (1.2%)	10 (1.0%)	8 (0.8%)
Financial exploitation			
Giving poor reasons to spend the older person's money [.902]	389 (38.8%)	317 (31.7%)	311 (31.0%)
Convincing the older person to turn the title of the house to them [.832]	16 (1.6%)	25 (2.5%)	13 (1.3%)
Using the older person's money for himself or herself [.936]	135 (13.5%)	130 (13.0%)	119 (11.9%)
Changing the direct deposit destination to benefit himself or herself [.822]	18 (1.8%)	20 (2.0%)	15 (1.5%)
Forcing or persuading the older person to change or sign any financial or legal documents [.923]	8 (0.8%)	6 (0.6%)	4 (0.4%)
Borrowing money from the older person	90 (9.0%)	47 (4.7%)	34 (3.4%)

and not paying it back [.647]			
Saying that he or she was buying something for the older person; however, it was actually for his or her own use [.855]	32 (3.2%)	27 (2.7%)	19 (1.9%)
Switching some of the older person's expensive items for cheaper ones [.852]	23 (2.3%)	24 (2.4%)	15 (1.5%)
Trying to prevent the older person from spending money so as to maximize his or her inheritance [.833]	117 (11.7%)	102 (10.2%)	85 (8.5%)
Used the older person's money for himself or herself, feeling entitled [.853]	256 (25.6%)	182 (18.2%)	171 (17.1%)
Overcharging the older person for services or work that were poorly done or never done [.856]	9 (0.9%)	6 (0.6%)	5 (0.5%)
Tricking or pressuring the older person into buying something that the older person now regrets buying [.763]	21 (2.1%)	15 (1.5%)	10 (1.0%)
Making the older person a victim of fraud or scam [.739]	8 (0.8%)	6 (0.6%)	2 (0.2%)
Occurrence of any unexplained disappearances of the older person's money or possessions [.809]	12 (1.2%)	16 (1.6%)	6 (0.6%)
Financial abuse—Restrictive (any positive item from list of 11)	395 (39.4%)	324 (32.3%)	315 (31.4%)
Financial abuse—Lenient (any positive item from list of 14)	409 (40.8%)	343 (34.2%)	333 (33.2%)

Note. [Intraclass correlation]. CR = care recipient; CG = caregiver.

Table 3. Observation-Based Assessment of Abuse Subtypes.

	Presence of Evidence
1. Possible physical abuse indicators	
a. Bruising	18 (1.8%)
b. Lacerations	9 (0.9%)
c. Fractures	6 (0.6%)
d. Various stages of healing of any bruises or fractures	15 (1.5%)
Any of 1a to 1d	22
2. Possible caregiver neglect indicators	
a. Contractures	6 (0.6%)
b. Decubiti	85 (8.5%)
c. Dehydration	55 (5.5%)
d. Diarrhea	97 (9.7%)
e. Depression	255 (25.4%)
f. Impaction	45 (4.5%)
g. Malnutrition	243 (24.3%)
h. Urine burns	317 (31.7%)
i. Poor hygiene	221 (22.1%)
j. Failure to respond to warning of obvious disease	172 (17.2%)
k. Inappropriate medications (over/under)	195 (19.5%)
l. Repetitive hospital admissions due to probable failure of health care surveillance	80 (8.0%)
Any of 2a to 2l	354 (35.4%)
3. Possible financial exploitation indicators	
a. The older person unable to account for money/ credit cards/bank cards	155 (15.5%)
b. The caregiver's own medications purchased under	101 (10.1%)

the older person's hospital account	
c. Other evidence (e.g., caregiver asking the older person for money, credit cards, or bank cards observed)	19 (1.9%)
Any of 3a to 3c	179 (17.9%)
4. Possible psychological abuse indicators	
a. Insulted the older person at a loud voice	2 (0.2%)
b. Shouted or yelled at the older person	28 (2.8%)
c. Used disrespectful language when talking to the older person	5 (0.5%)
d. Used a harsh tone of voice when talking to the older person	147 (14.7%)
Any of 4a to 4d	155 (15.5%)