

Dyadic Vulnerability and Risk Profiling for Elder Neglect

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Purpose: Neglect of older adults accounts for 60% to 70% of all elder-mistreatment reports made to adult protective services. The purpose of this article is to report data from research, using a risk-and-vulnerability model, that captures the independent contributions of both the elder and the caregiver as they relate to the outcome of neglect. **Methods:** Between February 2001 and September 2003, older adults were screened and recruited through four emergency departments in New York and Tampa. The diagnosis of neglect was made by an expert neglect-assessment team. Elders and their caregivers were then scheduled for separate face-to-face interviews after discharge. **Results:** Constructs within the risk-and-vulnerability model were examined for scale-score significance based on the outcome diagnosis of neglect. In the risk domain, caregivers' functional status, childhood trauma, and personality were statistically significant. In the vulnerability domain, the elders' cognitive status, functional status, depression, social support, childhood trauma, and personality were significant. **Implications:** Findings from this study underscore the value of interdisciplinary assessment teams in emergency departments for screening elder neglect, with attention given to risk factors related to the caregiver and elder vulnerability factors, including reports of childhood trauma. The risk-and-vulnerability model may provide a link between the caregiving and neglect research. Data should be

collected independently from both members of the elder-caregiver dyad in order for clinicians to understand factors related to elders who receive the diagnosis of neglect from interdisciplinary teams.

Key Words: Elder mistreatment, Assessment, Caregiver burden, Childhood trauma

Elder mistreatment is a social problem of enormous magnitude and the focus of a 2003 National Research Council panel. Little is known about the dyadic interface between elders and caregivers, and the dynamics that lead to neglect. Our purpose in this article is to report research data, using a risk-and-vulnerability model, that captures the independent contributions of the elder and the caregiver as they relate to the outcome of neglect.

Elder Mistreatment

The National Research Council (2003) has defined elder mistreatment as "(a) intentional actions that cause harm or create a serious risk of harm (whether or not harm is intended) to a vulnerable elder by a caregiver or other person who stands in a trusting relationship to the elder or (b) failure by a caregiver to satisfy the elder's basic needs or to protect the elder from harm." Elder mistreatment results in serious and often debilitating consequences for older adults, both physically and emotionally. The enormous number of hours that go into a protective-service evaluation and the subsequent time spent in counseling with the older adult add to the burden of this problem. The untoward outcomes caused by abuse, neglect, exploitation, and abandonment of elderly individuals (Hudson, Johnson, & O'Brien, 1986) have to be systematically explored in order for us to begin to understand the elder-mistreatment syndrome. Elder mistreatment was largely unrecognized as a problem until mandated reporting laws became common in the early 1980s (Capezuti, Brush, &

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Lawson, 1997), and prevalence from a classic random sample survey estimated elder mistreatment at 32/1,000, for an annual prevalence figure of 700,000 to 1.2 million cases in the United States (Pillemer & Finkelhor, 1988). Similar figures have been reported in Britain and Canada with the use of the same measures (Ogg & Bennett, 1992; Podnieks, 1987). The National Center for Elder Abuse, which reports data from state mandatory reporting law agencies, has put the figure at more than 1 million annually (Tatara, 1993; T. Tatara, personal communication, March 18, 1996). It should be noted that there are few data for the incidence and prevalence of elder mistreatment. There has never been a national prevalence study, and available data are becoming dated.

Elder Neglect

Neglect of older adults accounts for 60% to 70% of all elder-mistreatment reports made to Adult Protective Services (APS; Tatara, 1993) and usurps over 50% of all APS resources (T. Tatara, personal communication, March 18, 1996). The National Elder Abuse Incidence Study documented that, of the 70,942 incident cases of neglect substantiated in that study by APS, 34,525 (48.7%) were categorized as neglect (The National Center on Elder Abuse at The American Public Human Services Association in Collaboration with Westat, Inc., 1998). In addition, the report documented that neglect is the most common form of elder mistreatment; it increased dramatically over the 4-year reporting period, from 47% in 1990 to 58.5% in 1994, although reports of abuse as a percentage of all reported elder mistreatment declined from 20.2% to 15.7%. The report described neglect as the refusal or failure to fulfill any part of a caregiving person's obligations or duties to an elder.

Neglect is defined more broadly by the National Research Council (2003) as "an omission by responsible caregivers that constitutes 'neglect' under applicable federal or state law," and may include refusal or failure by a person who has fiduciary responsibilities to provide care for an elder (e.g., failure to pay for necessary home care service, or the failure on the part of an in-home service provider to provide necessary care). Physical neglect typically means the refusal or failure to provide an elderly person with such life necessities as food, water, clothing, shelter, personal hygiene, medicine, comfort, personal safety, and other essentials included as a responsibility or an agreement. Psychological or emotional neglect is the "failure to provide dependent elderly individuals with social stimulation," which might involve leaving elders alone for long periods of time, ignoring them or giving them the silent treatment, or failing to provide any kind of companionship, change in routine, news, or information (American Medical Association, 1992; Aravanis et al., 1993; National Research Council). Neglect cases can be just as serious, if not more serious, than

physical abuse cases (Fulmer & Ashley, 1989; Fulmer, Ashley, & Reilly, 1986; Fulmer et al., 2004).

Rationale for This Study

Specific literature on elder neglect has been modest, and models from the child abuse and spouse abuse literature do not apply. Investigators in the field of child abuse and neglect have more predictable sets of norms in terms of growth and development for children, in contrast with the multiple health presentations in later life. Unlike signs and symptoms that might occur in children or younger adults, older adults often have several chronic diseases or disorders such as diabetes, hypertension, and congestive heart failure, which can mask or mimic elder mistreatment (Fulmer & Ashley, 1989; Lachs & Pillemer, 1995; Lachs, Williams, O'Brien, Hurst, & Horwitz, 1996). Cognitive impairment in elders also may compromise the ability of health professionals to obtain an accurate history of elder mistreatment. Battered women research is another paradigm that does not adequately help explain caregiver mistreatment of older adults. Generic factors in models of risk for elder mistreatment include status inequality, power-and-exchange dynamics, relationship types, social embeddedness of the elder and trusted other, and individual level factors (National Research Council, 2003). The complexity of the interactions across and among these factors is particularly challenging.

Fulmer and Ashley (1989) conducted an exploratory factor analysis to test the construct validity of items related specifically to neglect in an Elder Abuse Assessment Instrument (EAI). Results suggested that three constructs might be related to neglect: (a) nutritional deficits, (b) altered skin integrity, and (c) alterations in elimination. Interestingly, these constructs closely reflect eating and feeding, bathing, transfer, and toileting on the Activities of Daily Living Scale (Katz, Ford, Moskowitz, Jackson, & Jaffe, 1963). Clinicians must understand the older person's context to interpret sign and symptoms, which may or may not be the result of caregiver neglect.

Why a Dyadic Approach

Dyadic-interview approaches have been used in other studies to examine characteristics and perceptions of each member of the dyad independently and how these characteristics might result in elder mistreatment. In a study of unnecessary restriction, Fulmer and Gurland (1996, 1997), found that the caregivers of elders in that study differed significantly in their profiles on the basis of whether they were paid or unpaid caregivers. This approach has great utility in helping clinicians to better understand all types of elder mistreatment, because of the complex nature of caregiving relationships and the reciprocity

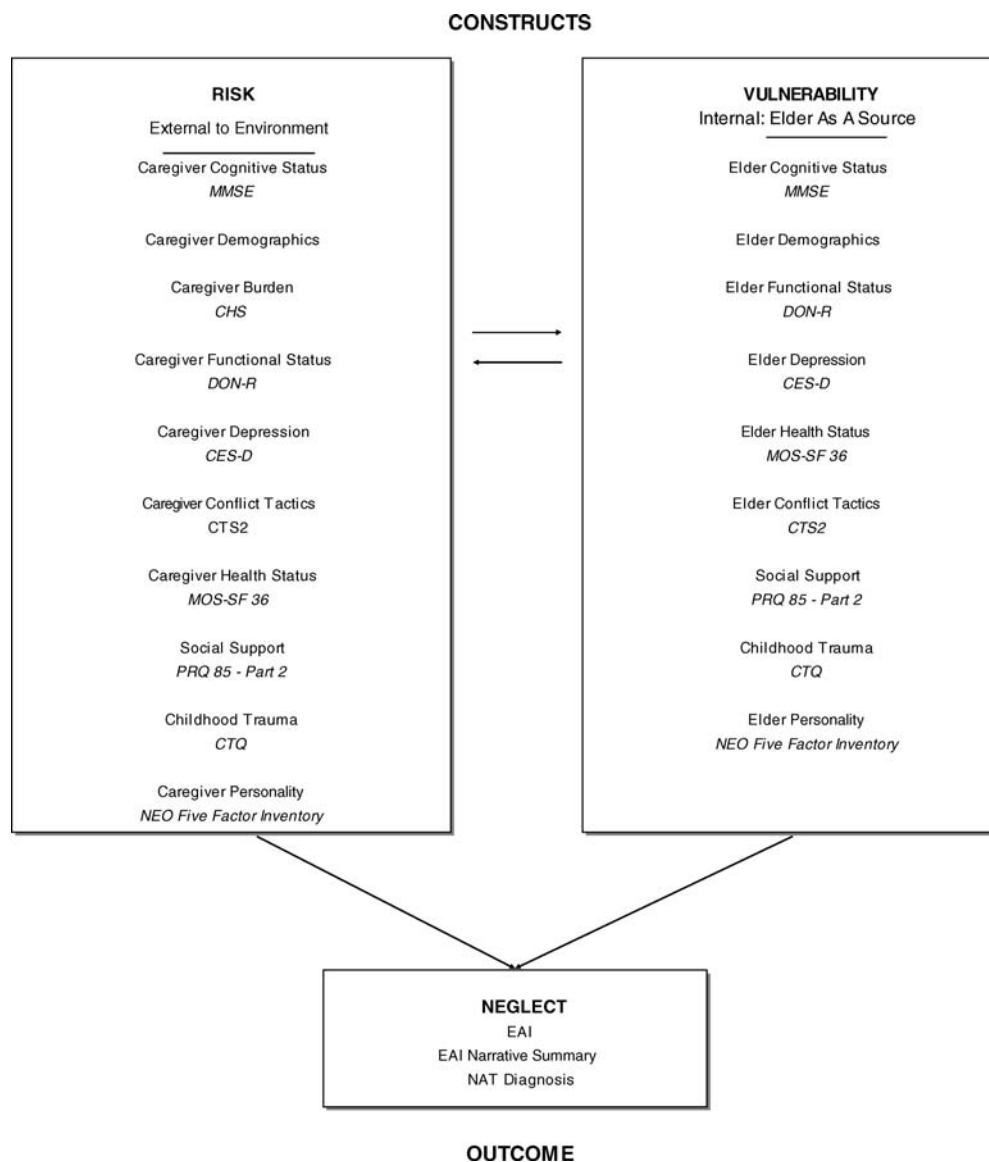


Figure 1. The conceptual model for risk and vulnerability.

that takes place. Matthias and Benjamin (2003) reported that limited research has been conducted regarding paid home care workers and elder mistreatment. In an effort to better understand this relationship, they analyzed data from California's In-Home Supportive Services program. Findings suggest that clients of the professional agency model were twice as likely to report neglect as the clients of the consumer-directed model (a model that allows the client to hire anyone, even a relative, as a provider). Clients who hired relatives as paid home care workers reported less abuse and neglect than clients who hired nonfamily home care workers.

Caregiver researchers have long sought to understand the features of humans that make them better or lesser caregivers (Dellasega, 1991; George & Gwyther, 1986; Lawton, Moss, Kleban, Glicksman, & Rovine, 1991; Lawton, Rajagopal, Brody, & Kleban, 1992). Caregiver role strain has been

examined, with discussion of self-perceived caregiver skills, and constructs such as self-efficacy, caregiver mastery, competence, preparedness, and quality have been examined (Schumacher, Stewart, & Archbold, 1998). There is a need to link the literature between the caregiving and neglect research, because caregiving research is extremely important to the understanding of elder mistreatment. To date, the caregiver research has focused on the nature of caregiving and caregiver attributes, with respect to perceived burden and quality of care. In this study, we seek to link caregiving and neglect research by using a risk-and-vulnerability model.

Conceptual Model

The risk-and-vulnerability model was based on the Rose and Killien (1983) model as applied to elder abuse by Frost and Willette (1994; see Figure 1).

Risk refers to hazards or stressors in the environment, whereas vulnerability refers to the characteristics of the individual (Rose & Killien, 1983). Risk might include a caregiver who is depressed or has inadequate economic support for appropriate shelter, food, or clothing. Vulnerability might include poor health, cognitive decline, disturbing behaviors, or an inability to conduct one's own activities or instrumental activities of daily living (ADLs or IADLs).

Several theoretical explanations have been advanced as to why elder mistreatment occurs, but few of these theories have been empirically tested (Gelles & Pedrick-Cornell, 1990; National Research Council, 2003; Pillemer & Finkelhor, 1988). One theory that has widespread support in the elder-abuse literature is the situational model (Phillips, 1986). This model proposes that, as the stress associated with certain situational or structural factors increases for the caregiver, the likelihood for elder mistreatment increases (Gelles & Pedrick-Cornell; Phillips & Rempusheski, 1986). We believe this model does not sufficiently separate the contributions of the elder from those of the caregiver toward neglect. Data from a few studies seem to indicate a relationship between elder mistreatment and the presence of mental or physical impairments of the elder (Wolf, Godkin, & Pillemer, 1984).

Four studies (Coyne, Reichman, & Berbig, 1993; Fulmer, McMahon, Baer-Hines, & Forget, 1992; Pillemer & Finkelhor, 1988; Rose & Killien, 1983) reported a relationship between cognitive impairment and abuse. The first study (Coyne et al.) concluded that caregivers who were victims of physical abuse by the cognitively impaired elder were more likely to be abusive back. Unfortunately, this study had several limitations, including a singular focus on physical events; a cross-sectional study design that did not allow for an analysis of the relationship between the progression of cognitive impairment and elder mistreatment; and potential sample bias caused by the use of an anonymous questionnaire. The second study reported a significant positive association between cognitive impairment (both delirium and dementia) and the outcome of abuse (Fulmer et al.). In another report (Pillemer & Finkelhor), causal theories for elder abuse include caregiver stress, dependency of the abuser, the elder's degree of physical or mental impairment, learned violence, societal attitudes, and characteristics in institutions related to the staff, facility, and elder resident. That report recommended programs of research that look at the characteristics of victims and abusers, causes of abuse, and analysis of the APS system. The risk-and-vulnerability model encompasses both the environmental and elder sources and provides an integrative framework to address the aforementioned debate.

On the basis of the model, we hypothesized that older adults, diagnosed as neglected, would have different risk-and-vulnerability profiles from those

who were not neglected (American Medical Association, 1994; Aravanis et al., 1993). The vulnerability of the elder to the risk posed by the caregiver (Frost & Willette, 1994) posits the interaction of both within the elder-caregiver dyadic relationship (Fulmer & Paveza, 1998). In this study, in an effort to better understand the likelihood and determinants of neglect within the dyadic context of elder and caregiver, we looked at differences between neglect and no-neglect cases in terms of elder vulnerability as well as environmental risk posed by the caregiver. The research questions were as follows: Are there differences between neglected elders and those not neglected in terms of demographics, functional status, depression, health status, cognitive status, elder behavior, social support, childhood trauma, and personality? Further, are there differences between the caregivers of neglected elders and those not neglected, in terms of demographics, caregiver burden, functional status, depression, health status, cognitive status, social support, childhood trauma, and personality?

Methods

Between February 2001 and September 2003, older adults were screened and recruited through four urban emergency departments in New York and Tampa (Fulmer et al., 2004). Following the dissemination of written material about the study and after obtaining verbal consent from the older adult, the research assistants proceeded with the screen to determine study eligibility. Inclusion criteria for the study included the following: being 70 years of age or older; speaking English or Spanish; having a Mini-Mental State Examination (MMSE) score of 18 or greater; using a paid or unpaid caregiver 20 hr a week or more; and having a telephone in the home. Once the research assistants determined eligibility, they obtained written consent; they collected information regarding demographics, an MMSE, and an initial elder-assessment screen using the EAI (Fulmer, 1984; Fulmer, Street, & Carr, 1984). The research assistants forwarded all completed assessment data to an expert neglect-assessment team. The neglect-assessment team made the diagnosis of neglect or no neglect, and we used this diagnosis for case designation (Fulmer et al., 2004).

Elders and their caregivers who agreed to participate in the study were then scheduled for separate face-to-face interviews once the elders were discharged from the hospital, and they were compensated \$20 on completion of the interview. We used the elder face-to-face interview that captured vulnerability factors to collect demographic information and information regarding the older adult's cognitive status, functional status, depression, health status, social support, childhood trauma, and personality. We used the caregiver face-to-face

interview that captured risk factors to collect demographic information and assessment of risk factors for neglect in the elder. Specifically, we gathered data regarding the caregiver's cognitive status, functional status, depression, health status, social support, childhood trauma, personality, and burden, all of which would contribute to elder risk. The average time to conduct the interviews ranged from 60 to 90 min; caregivers and older adults were interviewed in isolation of one another.

Measures

The demographic data we collected on the elder and the caregiver consisted of age, gender, ethnic or racial background, religious preference, education, (former) occupation, marital status, and current living arrangement. We also collected information regarding financial status (i.e., income, financial support), health resources utilization, specific relationship to caregiver, all sources of care by amount provided, morbidity, place of birth, house ownership, and insurance status.

We assessed elder and caregiver cognitive status by using the MMSE (Folstein, Folstein, & McHugh, 1975), a 30-item instrument measuring orientation, memory, attention, ability to name, ability to follow verbal and written commands, ability to write a sentence spontaneously, and ability to copy a geometric figure. We used a cutoff score of 18 to determine if the elder was still eligible to participate in the face-to-face interview.

We measured elder and caregiver functional status by using the Determination of Need Scale (DON-R; Hagopian, Paveza, Prohaska, & Cohen, 1990; Paveza, Prohaska, Hagopian, & Cohen, 1989; Prohaska, Hagopian, Cohen, & Paveza, 1989). The DON-R assesses level of impairment on six ADLs and nine IADLs, using specific definitions for each of the functional abilities and specific definitions for each of the levels of impairment. Functional ability is rated on two Likert subscales; one measures impairment in functioning, and the second measures need for care. Combining the levels of impairment and need for care subscales results in a total score that measures the demand for care.

We assessed depression in both elders and caregivers by using the Center for Epidemiological Studies–Depression Scale (CES-D; National Institute of Mental Health, 1977; Radloff, 1977). The CES-D is a 20-item, Likert scale in which higher scores indicate a higher level of clinical symptomology of depression.

We assessed elder and caregiver health status by using the Medical Outcomes Study 36-Item Short Form (MOS SF-36; Ware & Sherbourne, 1992). The MOS SF-36 is a self-report health status instrument with eight scales that measure both physical and mental dimensions of health status. These include physical functioning, role limitations secondary to

physical functioning, bodily pain, general health perception, vitality, social functioning, role limitations that are due to emotional problems, and mental health. Each scale is scored separately, resulting in a profile of eight scores for each dyad member.

We measured perceived social support for the elder and the caregiver by using the Personal Resource Questionnaire (PRQ-85), Part 2 (Weinert, 1988; Weinert & Brandt, 1987). The instrument has five subscales: intimacy; social integration; reassurance and worth as an individual and in role accomplishments; the availability of informational, emotional, and material help; and nurturance (Weinert & Brandt). The instrument includes 25 items, each scored on a 7-point Likert scale (*strongly agree* to *strongly disagree*), and we used the summated score, with higher scores indicating higher levels of perceived social support.

We assessed elder and caregiver childhood trauma by using the Childhood Trauma Questionnaire (CTQ; Bernstein & Fink, 1998). The CTQ is a brief 28-item, Likert, self-report inventory that assesses five types of maltreatment: emotional, physical, and sexual abuse, and emotional and physical neglect. Cut scores have been set for each type of trauma at four levels of maltreatment: none (or minimal), low (to moderate), moderate (to severe), and severe (to extreme). Higher scores suggest more severe maltreatment experiences.

We assessed elder and caregiver personality by using the NEO Five Factor Inventory (NEO-FFI; Costa & McCrae, 1989). The NEO-FFI, a shortened version of the NEO Personality Inventory (NEO-PI; Costa & McCrae, 1985), is a 60-item instrument designed to assess the five major domains of personality (i.e., neuroticism, extraversion, openness, agreeableness, and conscientiousness). Each subscale is composed of 12 summated items, and answer choices fall on a 5-point scale ranging from *strongly agree* to *strongly disagree*.

We measured caregiver burden by using the Caregiver Hassles Scale (CHS; Kinney & Stephens, 1989). The CHS is a 42-item, Likert instrument comprising five subscales that assess hassles related to care with basic ADLs, IADLs, cognitive status, the care recipient's behavior, and the caregiver's support network. We computed subscale scores by summing ratings across the items, with higher scores indicating greater perceived burden.

Data Analysis

We entered data into SPSS v12.0 and analyzed the relationship between the measured variables and the neglect-assessment team's diagnosis of neglect by using one of several techniques, depending on the scale of measurement of the variable. The scoring instructions for each instrument were followed for treating missing data. For variables measured on

Table 1. Elder Demographics by Neglect Versus No Neglect Status

Elder Demographic	Neglect (<i>n</i> = 29)		No Neglect (<i>n</i> = 136)		<i>p</i>
	M (<i>SD</i>)	%	M (<i>SD</i>)	%	
Gender (% female)		69.0		69.9	
Age	82.7 (6.5)		81.8 (7.5)		
Cultural and ethnic background					
American Indian and Alaskan Native		0.0		0.7	
Asian		0.0		0.0	
African American		21.4		17.6	
Hispanic and Latino		42.9		23.5	.02
White		28.6		55.1	
Other		7.1		2.9	
Religious background					
Roman Catholic		42.9		37.9	
Jewish		25.0		32.6	
Protestant		14.3		17.4	
Other		17.9		12.1	
Educational background					
None		6.9		2.2	
≤8 th grade		34.5		25.0	
Some high school		3.4		11.8	
High school diploma		31.0		16.9	
Post high school		3.4		6.6	
Some college		13.8		13.2	
College degree		0.0		12.5	
Post graduate		6.9		11.8	
Marital status					
Married		24.1		32.3	
Widowed		51.7		48.9	
Divorced		6.9		6.0	
Separated		3.4		3.0	
Never married		10.3		9.0	
Living together as though married		3.4			.08
Work status					
Full time		0.0		1.5	
Part time		0.0		2.3	
Retired		78.6		78.2	
Unemployed		3.6		4.5	
Keeping house		3.6		1.5	
Disabled		10.7		9.0	
Other		—		3.0	
Average hr care received/week from caregiver	57.6 (45.5)		60.6 (45.7)		
Average hr care received/week from others	17.4 (22.1)		23.5 (34.9)		
Financial background					
Income ≤\$15,000		72.2		70.1	
Income \$15,001–\$30,000		16.7		12.6	
Income \$30,001–\$50,000		5.6		10.3	
Income ≥\$50,000		5.6		6.9	
Caregiver financially supports elder (% yes)		31.0		48.1	

Table 1. (Continued)

Elder Demographic	Neglect (<i>n</i> = 29)		No Neglect (<i>n</i> = 136)		<i>p</i>
	M (<i>SD</i>)	%	M (<i>SD</i>)	%	
Elder financially supports caregiver (% yes)		13.8		26.7	
Household information					
Caregiver resides with elder (% yes)		20.7		36.0	
No. of people living in the home	0.8 (0.5)		1.4 (1.2)		.04
Health background					
Health problems that require doctor's attention (% yes)		89.7		89.6	
Health problems that limit activities (% yes)		85.7		67.2	.05
No. of days in hospital in last 12 months	34.0 (61.4)		18.8 (35.5)		
No. of visits to doctor in last 12 months	22.7 (21.2)		26.0 (63.2)		
No. of days unable to carry out usual activities	82.4 (137.0)		41.1 (91.0)		
Health Insurance					
Medicaid (% yes)		82.6		57.0	.03
Medicare (% yes)		96.6		94.0	
No insurance (% yes)		0.0		0.0	
Other (% yes)		47.4		45.6	

Notes: For the table, *p* values are significant at the *p* ≤ .05 level.

interval or ratio scales, we assessed association by using an independent samples *t* test when parametric assumptions were met or by Mann–Whitney–Wilcoxon test when they were not. We set statistical significance for all tests at *p* ≤ .05, and no multiple comparison adjustments have been performed.

Results

Sample Demographics

Of the 405 older adults and caregivers who were eligible to participate in the study, 165 (41%) completed the face-to-face in-home interview. Of the 240 who did not complete the face-to-face in-home interview, 29 (12%) were deceased, 49 (20%) were ineligible at the time of the in-home interview, 26 (11%) were unreachable (wrong number), 6 (3%) were not diagnosed by the neglect-assessment team, and 130 (54%) refused to participate.

Overall, the demographics of the neglect and no-neglect groups were the same except in the

Table 2. Caregiver Demographics by Neglect Versus No Neglect Status

Caregiver Demographic	Neglect (<i>n</i> = 29)		No Neglect (<i>n</i> = 136)		<i>p</i>
	<i>M</i> (<i>SD</i>)	%	<i>M</i> (<i>SD</i>)	%	
Gender (% female)		96.6		86.0	
Age	50.5 (13.1)		52.5 (15.2)		
Cultural and ethnic background					
American Indian and Alaskan Native		0.0		2.3	
Asian		3.6		1.5	
African American		17.9		28.8	
Hispanic and Latino		60.7		31.8	.04
White		10.7		23.5	
Other		7.1		12.1	
Religious background					
Roman Catholic		48.1		45.8	
Jewish		3.7		8.4	
Protestant		14.8		15.3	
Other		33.3		30.5	
Educational background					
≤8 th grade		17.2		17.6	
Some high school		10.3		20.6	
High school diploma		34.5		30.1	
Post high school		6.9		3.7	
Some college		20.7		14.7	
College degree		10.3		7.4	
Post graduate		0.0		5.9	
Marital status					
Married		58.6		53.0	
Widowed		3.4		6.0	
Divorced		10.3		10.4	
Separated		10.3		12.7	
Never married		17.2		15.7	
Living together as though married		0.0		2.2	
Relationship of caregiver to elder					
Spouse		11.5		19.9	
Daughter		0.0		5.1	
Son		3.8		1.5	
Daughter-in-law		3.8		0.0	
Son-in-law		0.0		0.7	
Other family member		3.8		3.6	
Paid caregiver		73.1		65.4	
Other		4.0		3.8	
Work status					
Full time		69.2		57.5	
Part time		19.2		14.9	
Retired		11.5		22.4	
Unemployed		0.0		1.5	
Keeping house		0.0		1.5	
Disabled		0.0		2.2	
Financial background					
Income ≤\$15,000		59.0		49.5	
Income \$15,001–30,000		31.8		29.2	
Income \$30,001–\$50,000		9.0		12.1	
Income ≥\$50,000		0.0		9.1	

Table 2. (Continued)

Caregiver Demographic	Neglect (<i>n</i> = 29)		No Neglect (<i>n</i> = 136)		<i>p</i>
	<i>M</i> (<i>SD</i>)	%	<i>M</i> (<i>SD</i>)	%	
Caregiver financially supports elder (% yes)		10.7		26.0	
Elder financially supports caregiver (% yes)		32.1		35.3	
Household information					
Caregiver resides with elder (% yes)		20.7		36.0	
No. of people living in the home	2.7 (1.3)		2.5 (1.5)		
Health background					
Health problems that require doctor's attention (% yes)		14.3		38.5	.02
Health problems that limit activities (% yes)		6.9		23.0	
No. of days in hospital in last 12 months	0.8 (1.9)		5.1 (23.6)		
No. of visits to doctor in last 12 months	4.2 (8.3)		5.2 (18.7)		
No. of days unable to carry out usual activities	2.2 (6.0)		7.4 (22.0)		
Health Insurance					
Medicaid (% yes)		17.4		22.1	
Medicare (% yes)		4.5		33.3	.01
No insurance (% yes)		25.0		31.5	
Other (% yes)		62.5		59.1	

Notes: For the table, *p* values are significant at the *p* ≤ .05 level.

following areas (Tables 1 and 2). Elders in the neglect group had fewer people living in the home (*p* < .04) and were more likely to be Hispanic or Latino by self-report (*p* < .02), to have health problems that limited activities (*p* < .05), and to be Medicaid recipients (*p* < .03). Caregivers of the neglect group were more likely to be Hispanic or Latino by self-report (*p* < .04), were less likely to have health problems that required a doctor's attention (*p* < .02), and were less likely to be on Medicare (*p* < .01). Interestingly, the mean age of the two caregiver groups was not significantly different, although the no-neglect group was significantly more likely to report "yes" to Medicare benefits (*p* < .01).

Risk-and-Vulnerability Analysis

We examined constructs within the risk-and-vulnerability model (Figure 1) for scale-score significance based on the outcome diagnosis of neglect.

Table 3. Significant Differences Between Neglect and No Neglect on Risk and Vulnerability Model Constructs

		Neglect (<i>n</i> = 29)	No Neglect (<i>n</i> = 136)	
Construct	Assessment Instruments (Interval/Ratio)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>p</i>
Risk				
Functional status	Total unmet need (DON-R)	0.09 (0.12)	0.05 (0.11)	.04
Functional status	Unmet need instrumental ADL (DON-R)	0.10 (0.13)	0.05 (0.12)	.03
Childhood trauma	Physical neglect–total score (CTQ)	8.17 (3.34)	6.91 (2.46)	.02
Personality	Openness subscale (NEO)	29.37 (4.47)	27.22 (5.14)	.05
Vulnerability				
Cognitive status	Elder cognitive status (MMSE)	24.57 (3.01)	25.98 (3.47)	.05
Functional status	Instrumental unmet need for care (DON-R)	0.15 (0.23)	0.06 (0.16)	.01
Depression	Elder depression (CES-D)	23.93 (11.07)	18.98 (8.21)	.01
Social support	Total PRQ	120.69 (24.58)	129.31 (18.52)	.03
Childhood trauma	Physical abuse–total score (CTQ)	8.03 (5.34)	5.66 (1.78)	.03
Childhood trauma	Physical neglect–total score (CTQ)	9.10 (4.21)	6.94 (2.46)	<.001
Personality	Neuroticism (NEO)	22.97 (8.50)	19.62 (7.66)	.04

Notes: DON-R = Determination of Need scale; CTQ = Childhood Trauma Questionnaire; NEO = Neuroticism; MMSE = Mini-Mental State Examination; CES-D = Center for Epidemiologic Studies–Depression scale; PRQ = Personal Resource Questionnaire.

We found support for the model for both the risk (environmental) and vulnerability (internal to the elder) constructs.

Risk Constructs.—In the risk domain, caregiver functional status, caregiver childhood trauma, and caregiver personality were statistically significant (Table 3). In terms of functional status, caregivers in the neglect group were more likely to report unmet need for assistance with ADLs ($p < .04$) and unmet need for assistance with IADLs ($p < .03$). This would indicate a caregiver group in poorer health with less capacity to provide care. Caregivers of elders in the neglect group were also more likely to have experienced childhood physical neglect ($p < .02$). This may mean that these caregivers had a lower standard for caregiving quality, based on norms of care provided to them in their own lives. To explore this further, follow-up interviews with this group are being planned. Finally, caregivers in the neglect group were more likely to have openness as a personality trait ($p < .05$) than caregivers of elders in the no-neglect group. Openness on the NEO-FFI reflects frankness in responding to questions. It may be that the caregiver is therefore more likely to admit, in an open way, that he or she had problems with caregiving. Further, the openness trait might predispose the caregiver to discuss any neglect in his or her own childhood (see Table 3).

Vulnerability Constructs.—In the vulnerability domain, elder cognitive status, elder functional status, elder depression, elder social support, elder childhood trauma, and elder personality were significant (Table 3). In terms of cognitive status, elders in the neglect group were more likely to have lower MMSE scores ($p < .05$). Elders in the neglect group reported health problems that limited their

daily activities ($p < .05$) and had higher levels of instrumental unmet needs for care ($p < .01$) in the functional domain. These elders had more depression ($p < .01$) and had lower levels of social support ($p < .03$). They also had more childhood physical abuse ($p < .03$), more childhood neglect ($p < .001$), and were more likely to have neuroticism as a personality trait ($p < .04$) than elders in the no-neglect group. Clearly, elders in the neglect group are frailer, are more biopsychosocially limited, and have either symptoms from their neglect or symptoms that may lead a caregiver to neglect them. The directionality cannot be inferred from these data.

Limitations

Although results from this study indicate some statistically significant differences between caregivers and elders in the neglect group versus caregivers and elders from the no-neglect group, there are several limitations that have to be addressed. Even though we used four emergency departments in four urban settings as the point of entry into this study, the sample comes primarily from New York State. Of the 29 cases in the neglect category, only 2 came from the Florida sites. The New York hospitals were more effective at integrating the study protocol into their emergency departments. Another important limitation may be selection bias. Participants were recruited into this study from emergency departments, and therefore, the sample may be over-representative of elders who do not have a primary care provider, or health insurance. The high proportion of Hispanic participants is likely due to the demography of the neighborhood at one of the New York City sites. Further, the fact that the interviews were conducted in only English or Spanish precludes

any knowledge of elders from groups that speak languages other than these. Older adults enrolled in the study had health problems that needed medical attention, and this suggests that the caregivers acknowledged the older adult's need for medical care. Thus, it is possible that the more severely neglected individuals were never brought to the emergency department and are excluded from the study. Selection bias also could result from excluding those older adults in the emergency department who may have met the eligibility criteria but were never approached because they were too ill to be seen by the research staff. In the community sample, sample bias also could occur given the high attrition rate described in this article. Those people who elect to participate may be different from those who refuse, and this warrants further exploration in future studies.

Discussion and Future Research

This study provides preliminary findings, given study limitations, that older adults who are diagnosed as neglected are sicker, have fewer financial resources, and have less help in the home. Although findings are consistent with previous studies (Lachs et al., 1996; Lachs, Williams, O'Brien, Hurst, & Horwitz, 1997), this study provides some insight into elder and caregiver characteristics that may have mutual influences on elder neglect. They indicate that when older adults are frail, cognitively limited, and report childhood trauma, they are more likely to be diagnosed as neglected by a clinical care team. Cognitive decline, depression, poorer social support, and neuroticism are associated with the outcome diagnosis of neglect. The relationship between self-reported childhood trauma experience and later-life neglect suggests that older adults who suffered from physical neglect and abuse in childhood may be more likely to tolerate poor care in later life. This type of care may be perceived as normative, or there may be a sense of despair and belief that things cannot be better. Regardless, further examination of the childhood trauma status of older adults is warranted when one is screening for neglect. Personality profiles also should be taken into consideration when one is screening for elder neglect. This study's data suggest that the trait of openness may contribute to a willingness to self-report, and the converse, that those less-open individuals maybe be less likely to report neglect or neglectful situations. Neuroticism, as determined by the measure used here, is more difficult to interpret. Older adults who scored as neurotic may be more paranoid and more suspect of caregivers, or more likely to complain of poor care. Conversely, they may be more likely to score as neurotic from years of bad care. Longitudinal studies have been suggested that follow children through older age to understand how

patterns of personality and care affect later life. This study underscores the need for such longitudinal studies to further our understanding of the prevention of elder neglect, as well as other types of mistreatment.

Conclusions

Previously, elder neglect by caregivers was poorly understood from the context of the elder-caregiver relationship. This study provides new data that can begin to inform intervention studies designed to look at educational interventions that may reduce the risk of elder neglect. Health care providers, especially those responsible for rapid assessment and triage, can create or improve interdisciplinary assessment tools and procedures that screen for risk and vulnerability in elders at risk for neglect. Future research should continue to employ a dyadic approach when feasible, and focus on elder health problems that limit function, assess for depression, and screen for childhood trauma and poor social support.

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