

The Extent and Frequency of Abuse in the Lives of Older Women and Their Relationship With Health Outcomes

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Purpose: This study assessed the extent of different types of abuse, repeated and multiple abuse experiences among women aged 60 and older, and their effects on the women's self-reported health. **Design and Methods:** A cross-sectional study of a clinical sample of 842 community-dwelling women aged 60 and older completed a telephone survey about type and frequency of abuse, self-reported health status and health conditions, and demographic characteristics. Bivariate and multivariate analyses were performed using SPSS 11.5 and STATA 7.0. **Results:** Nearly half of the women had experienced at least one type of abuse—psychological/emotional, control, threat, physical, or sexual—since turning 55 years old. Sizable proportions were victims of repeat abuse. Many women experienced multiple types of abuse and experienced abuse often. Abused older women were significantly more likely to report more health conditions than those who were not abused. Women who experienced psychological/emotional abuse—alone, repeatedly, or with other types of abuse—had significantly increased odds of reporting bone or joint problems, digestive problems, depression or anxiety, chronic pain, and high blood pressure or heart problems. **Implications:** It is important that health care and service providers acknowledge psychological/emotional, control, threat, physical, and sexual abuse against older women and understand their health implications. In addition, it is

important for providers to be trained in both aging and domestic violence services and resources.

Key Words: Abuses, Health conditions, Repeat abuse, Multiple abuse, Older women

Researchers' understanding of psychological, physical, or sexual abuses against women and their relationship with physical and mental health conditions is derived almost exclusively from the experiences of teenage girls and pre-menopausal women. Generally, violence-against-women researchers and aging service providers have overlooked older women (Fisher et al., 2003). Even among the most steadfast advocates, only a handful of initiatives and collaborations promoting the intersection of abuse and aging exist (Brandl, 1997; Fisher, Zink, Pabst, Regan, & Rinto, 2004; Vinton, 2003; Wilke & Vinton, 2003).

Recently, however, there has been a renewed interest in examining the extent and nature of abuse against older women. Researchers and advocates from a variety of disciplines have reported that older women experience intimate-partner and domestic violence well into old age (Grossman & Lundy, 2003; Rennison & Rand, 2003; Teaster & Roberto, 2004). It should not be too surprising that, given the paucity of older women abuse studies, our understanding of the health consequences for abused older women is woefully limited. The issues of abuse and its health consequences will not retreat anytime soon. Older women are a fast-growing population as the baby boomers enter into old age and their life expectancy continues to lengthen.

Using data from a clinical sample of 842 community-dwelling women aged 60 and older, this study makes four contributions to researchers' understanding of the extent and nature of abuse against older women and the associated health conditions. First, we measured the extent of abuse experiences in late life—that is, since age 55—to capture the experiences of women who had reached a mature stage of their life cycle. Second, we expanded upon the types of abuse examined in

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previous studies to include control and threat abuses. Third, we examined not only the extent of abuse but also the extent of repeat abuse and multiple abuses and their respective frequencies. Last, we investigated the relationships between type of abuse (including repeat abuse) and older women's self-reported general health, number of health conditions, and specific psychological and physical health conditions.

The Extent of Abuse Against Older Women

The estimation of the extent of abuse against older women is a young field of inquiry. Only two national-level studies have been conducted since Pillemer and Finkelhor's (1988) pioneering study revealed that older women had experienced physical violence and verbal aggression since turning 65 years old. First, results from the National Elder Abuse Incidence Study (National Center on Elder Abuse, 1998) reported that 76.3% of surveyed women aged 60 and older had experienced emotional/psychological abuse and 71.4% were victims of physical abuse. Second, the National Crime Victimization Survey estimated that 118,000 intimate-partner victimizations were committed against women 55 years and older during a 9-year period (1993–2001; Rennison & Rand, 2003).

Only a handful of single-state studies have examined the extent of abuse suffered by older women (Grossman & Lundy, 2003; Teaster & Roberto, 2004). To illustrate, using data from the Women's Health Initiative in San Antonio, Texas, Mouton and colleagues (2004) reported that 11% of postmenopausal women had reported abuse within the past year. At the 3-year follow-up, 5% of the women had reported new experiences with abuse.

Collectively these studies reveal that older women are abuse victims into their old age, yet many questions about women's abuse later in life remain largely unanswered. These questions include: (a) What types of abuse do older women experience in their later years? (b) Are these women repeatedly abused, and, if so, which type of abuse do they repeatedly experience? (c) Do these women experience multiple types of abuse, and, if so, what are the patterns? and (d) How often does abuse occur? By better understanding the extent and frequency of abuse against older women, researchers can determine whether linkages exist between the abuse older women experience and their health-related outcomes.

The Associations Between Abuse and Health-Related Outcomes

Researchers have documented that abused women are at risk for several negative health-related consequences.

Self-Reported General Health Status.—Three studies are illustrative of the association between

abuse and general health status. First, Koss, Koss, and Woodruff (1991), using a 16-item measure of criminal victimization, reported that victimized women aged 19–69 years old perceived themselves as less healthy than nonvictimized women (i.e., as having more somatic complaints and less physical and mental well-being). Second, investigating a sample of women aged 21–55 years old, Campbell and colleagues (2002) reported that twice as many women who had experienced intimate-partner violence over a 9-year period rated their health as fair to poor compared with women who had never experienced such abuse. And third, Coker and colleagues (2002) reported that women aged 18–65 years old who had experienced lifetime intimate-partner physical, sexual, or psychological abuse were significantly more likely than nonabuse victims to self-report current poor health.

Number of Self-Reported Health Problems or Conditions.—Researchers have also shown that women who have experienced abuse are more likely to suffer more health problems compared with nonabused women. This includes suffering from more physical and mental health conditions and chronic health problems (see Sutherland, Bybee, & Sullivan, 2002). Campbell and colleagues (2002) reported that abused women had a higher rate of total physical health problems and central nervous system, gynecological, and chronic-stress symptoms compared with women who had never been abused.

Specific Chronic Health Problems or Conditions.—There is mounting evidence that different types of abuse and their co-occurrence are related to specific short- and long-term mental and physical health problems and conditions (Sutherland et al., 2002). The list of negative health effects includes depression, fear, chronic pain, osteoarthritis, gastrointestinal disorders, chronic stress, gynecological symptoms, chest pains, and cardiac problems (Campbell et al., 2002; Coker et al., 2002).

Repeat and Multiple Abuse.—For many women, abuse is not an isolated event; abuse happens repeatedly. Women who suffer repeated abuse experience two or more incidents of the same type of abuse within a specified time period—for some, this is daily (Tjaden & Thoennes, 1998). Women also experience different types of abuse (i.e., multiple forms of abuse). Campbell and colleagues (2002) reported that 33% of the abused women surveyed experienced both physical and sexual abuse.

Research suggests that repeat and multiple abuses take a negative toll on women's health, possibly even more negative than the abuse–nonabuse distinction that is commonly used in the abuse literature. First, there is evidence that women who experience multiple types of abuse report having poor health (Koss et al.,

1991). Second, the frequency of different types of abuse may affect some health outcomes but not others. Coker and colleagues (2002) also found that increased psychological intimate-partner-violence scores were strongly associated with self-reported current poor health status. Physical or sexual intimate-partner violence, however, was not related to current poor health status. Further clarifying the relationship between repeat abuse and type of health condition, Coker and associates reported that the frequency of a certain type of abuse was related to specific health conditions. That is, higher psychological intimate-partner-violence scores were significantly related to both the development of a chronic disease and current depressive symptoms. Higher physical or sexual intimate-partner-violence scores were significantly related only to current depressive symptoms.

There is evidence to suggest that experiencing multiple abuses—a combination of two types of abuse—has negative health-related consequences. Hegarty, Gunn, Chondros, and Small (2004) reported that “probably” depressed women were more likely to have experienced physical abuse and emotional abuse or harassment than “not” depressed women.

Overall, the results from these studies suggest that abuse has negative effects on women’s health. There is room for further research, including the examination of the abuse–health-consequences relationship for older women. To date, no published research has examined this relationship using a sample of women aged 60 years and older, and only a few published studies have examined abuse that happened after age 55 and its relationship to women’s health (see Mouton, 2003; Zink, Fisher, Regan, & Pabst, 2005).

Methods

Sample

In March 2003, we obtained patient lists of women aged 55 and older from five adult primary care clinics affiliated with an academic institution in southwestern Ohio and serving Indiana, Ohio, and Kentucky. We arranged the patient lists into three groups of phone numbers stratified by age: 55–64 years, 65–74 years, and 75 years and older. Trained female interviewers called each woman on the list between March and June 2003. We had obtained a total of 4,261 phone numbers. Each woman, aged 55–90, was called at least three times at different times on different days before being taken out of the sample.

Women gave verbal consent by agreeing to participate in the Women’s Health and Relationship Survey (WHRS). Of the 4,261 available numbers, 44% of the women ($n = 1,852$) were not available (answering machine or no answer). In addition, 7% ($n = 297$) of the numbers had been disconnected, and 6% ($n = 261$) were wrong numbers. Approximately 2% ($n = 67$) of the women were deceased, 1% ($n = 45$) were too sick to answer, and 0.4% ($n = 15$) of the women had family

members who intercepted the call and would not allow them to participate. Of the 1,724 women reached by phone, 40% ($n = 695$) refused to participate, 1.5% ($n = 26$) were unable to answer the three mental competency questions correctly (their age, birth date, and the current year) to assess their mental status, and 0.5% ($n = 8$) refused to answer the abuse questions. This resulted in 995 usable surveys and an adjusted response rate of 58% (995 out of 1,698).

Only women aged 60 and older ($n = 842$) were included in the current study. All of the women in the sample were community dwelling. None lived in institutional settings, such as a nursing home.

Instrument

The WHRS was adapted from validated instruments and included questions about mental status (Lachs & Pillemer, 1995), health conditions (Tjaden & Thoennes, 1998), abuse (Shepherd & Campbell, 1992; Tjaden & Thoennes) and sociodemographics. The survey administration took 20–45 minutes, depending on whether the woman had experienced abuse.

Measures

Type of Abuse.—The WHRS measured five different types of abuse: (a) psychological/emotional, (b) control, (c) threat of physical abuse, (d) physical, and (e) sexual. The abuse measures combined the uniform definitions regarding intimate-partner violence recommended by the Centers for Disease Control and Prevention with definitions housed within the elder abuse framework recognized by the U.S. National Academy of Sciences (Bonnie & Wallace, 2002; Saltzman, Fanslow, McMahon, & Shelley, 1999/2002).

We measured each of these five types of abuse by using multiple items. A principal components factor analysis performed on the six psychological/emotional and control abuse items confirmed two distinct factors. Three items loaded on one factor, psychological/emotional abuse (.85, .82, and .52); and three other items loaded on a second factor, control abuse (.81, .70, and .66).

Psychological/emotional abuse was a 3-item measure (Cronbach’s $\alpha = .64$). Control abuse was a 3-item measure (Cronbach’s $\alpha = .59$). Threat abuse was a 2-item measure (Cronbach’s $\alpha = .52$). Physical abuse was a 4-item measure (Cronbach’s $\alpha = .72$). Sexual abuse was a 3-item measure (Cronbach’s $\alpha = .71$). For each abuse item, women were asked if they had experienced the behavior “since you turned 55.”

Extent of Abuse.—We created three variables to measure the extent to which women in the sample experienced the five types of abuse. First, we created a dichotomous variable, abuse victim, which measured

whether a respondent had experienced any of the five types of abuse since she had turned 55 years old.

Second, we created a measure of repeated abuse. Repeated abuse was a count of the number of women who had experienced two or more abusive behaviors that comprised a specific type of abuse (i.e., the same type of abuse). To illustrate, three behaviors comprise psychological/emotional abuse. Women who reported having experienced two or more of these behaviors were coded as having been repeatedly psychologically/emotionally abused since age 55.

Third, multiple abuse was a measure of the number of women who had experienced any combination of at least two types of abuse. For example, a woman was coded as a victim of multiple abuse if she had experienced either both sexual and physical abuse, or both control and physical abuse.

Frequency of Abuse.—In order to measure the frequency with which abuse occurred, interviewers asked women how often different forms of abuse had happened to them since they had turned 55 years old. Responses were: never, rarely, occasionally, frequently, or very frequently. Of the respondents who had experienced at least one form of abuse within a specific type of abuse, those who reported “rarely” were coded as the Rarely group and those who reported “occasionally, frequently, or very frequently” were coded as the Often group. For example, a woman who had experienced any form of psychological/emotional abuse frequently was coded as often psychologically/emotionally abused. If, within the same type of abuse, she reported one form as having happened rarely and another form as having happened frequently, she was coded using the “highest” frequency category; in this case, coded as being in the Often group.

Health-Related Consequences.—Because one of the primary aims of this study was to examine the relationship between abuse experience and health-related consequences, we used several measures of health outcome. First, we created a dichotomous measure of the status of a woman’s health. Interviewers asked respondents to assess their health on a 5-point scale ranging from poor to excellent. For ease of analysis, we collapsed the “poor” and “fair” categories into one category and collapsed “good,” “very good,” and “excellent” categories into a second category to create the dichotomous measure of self-reported health status. We found that 55% ($n = 429$) of the women rated their health as good to excellent, and 45% ($n = 378$) rated their health as poor or fair.

The second dependent variable, number of self-reported health conditions, was a count of the number of health conditions that a doctor had told each woman that she currently had. The 10 items included: high blood pressure or heart problems; lung problems (e.g., asthma or chronic obstructive

pulmonary disease); diabetes or thyroid problems; bone or joint problems (e.g., osteoporosis or arthritis); depression or anxiety; digestive problems (e.g., irritable bowel syndrome or heartburn); stroke or nerve problems (e.g., Multiple Sclerosis or Parkinson’s disease); blood problems (e.g., anemia); chronic pain (e.g., migraines or back pain); and any type of cancer. Respondents averaged 3.3 ($SD = 1.8$) health conditions.

Third, we created a dichotomous measure of whether respondents currently had or did not have a specific health condition by asking questions that required respondents to identify which health conditions a doctor had told them they had. These were the 10 health conditions listed in the preceding paragraph. More than half of the respondents reported having high blood pressure or heart problems (75%) or bone or joint problems (65%). Less than half reported having diabetes or thyroid problems (37%), chronic pain (36%), digestive problems (31%), depression or anxiety (30%), lung problems (24%), cancer (13%), stroke or nerve problems (12%), or blood problems (12%).

Control Variables.—Similar to Coker and colleagues (2002) and Campbell and associates (2002), we employed several sociodemographic characteristics as control variables in the multivariate health-related consequences models. Using aged 75 and older (34%, $n = 285$) as the reference group, we created two age dummy variables for 60–64 years old (23%, $n = 191$), and 65–74 years old (44%, $n = 366$; percentages may equal greater than 100% due to rounding). Race/ethnicity was measured as a dichotomy: Black/African American or Other (45%, $n = 373$) and White (reference group, 55%, $n = 453$). Using less than high school education (36%, $n = 297$) as the reference group, we measured respondents’ level of education with two dummy variables: high school diploma (31%, $n = 255$), and some college to college graduate (34%, $n = 281$). Using being married/common law (32%, $n = 336$) as the reference group, we measured current marital status with three dummy variables: divorced/separated (18%, $n = 152$), widowed (41%, $n = 342$), and single/never married (9%, $n = 72$). Using less than \$20,000 (47%, $n = 389$) as the reference group, we measured annual household income with three dummy variables: \$20,000–\$40,000 (15%, $n = 128$), more than \$40,000 (10%, $n = 84$), and refused to answer or did not know (28%, $n = 228$). Given the Appalachian heritage in southwest Ohio, we included a dichotomous measure of whether a woman was of Appalachian decent (9%, $n = 79$) or not (91%, $n = 717$).

Data Analysis

Descriptive statistics and bivariate and multivariate data analyses are reported here. Appropriate

tests of significance are presented for the bivariate analyses. In order to examine the relationship between type of abuse and health-related consequences, we estimated several multivariate models. Depending on the distribution of the dependent variable, we estimated either a logit model or an analysis of covariance model. We estimated all of the multivariate logit models using STATA, version 7.0 (Stata-Corp, 2001). We calculated the descriptive statistics and estimated the analysis of covariance models with SPSS 11.5 for Windows (SPSS Inc., 2002).

Results

The Extent and Frequency of Abuse and Repeat Abuse

Nearly half (47%, $n = 393$) of all women aged 60 and older had experienced at least one type of abuse since the age of 55. Table 1 presents the descriptive results for the extent and frequency of abuse among older women. As is shown in Table 1, a substantial percentage (45%) of older women had experienced psychological/emotional abuse since turning 55 years old. Nearly 12% of older women had been threatened. Less than 5% of women had been victims of control abuse (4%), physical abuse (4%), or sexual abuse (3%).

However, the results on type of abuse experienced mask a more telling result once we look at the extent of repeat abuse. Of women who had experienced a specific type of abuse, between 21% (sexual abuse) and 47% (psychological/emotional abuse) had been victims of repeat abuse. For example, 32% of the physical abuse victims had been victims of repeat physical abuse. This means that these women had experienced two or more forms of physical abuse since turning 55 years old (i.e., any combination of the four different forms of physical abuse, such as being pushed and slapped, being slapped and choked, or being pushed, slapped, or choked).

The frequency of the occurrence of abuse also reveals noteworthy patterns. Of the older women who had experienced a specific type of abuse, in the case of 4 of the 5 types of abuse, more than 45% of the women had experienced abuse often since age 55: control abuse (88%), psychological/emotional abuse (57%), threat abuse (48%), and sexual abuse (46%). Slightly less, but still a substantial proportion (41%), had experienced physical abuse often since age 55.

Asking who perpetrated the abuse also revealed interesting results (not presented here). Interviewers did not ask respondents about the identity of the perpetrator of psychological/emotional abuse due to their concern for the respondent's discomfort with answering the first set of experience questions about psychological/emotional abuse. Interviewers did ask respondents about different categories of perpetrators (i.e., spouse/boyfriend, relative, or non-relative)

Table 1. Abuse Since 55 Years Old: Types of Abuse and Extent and Frequency of Abuse of Women 60 and Older

Type of Abuse, Specific Behavior ^a	Extent of Abuse		
	Abuse Victim, % (n) ^b	Repeat Abuse Victim, % (n)	Abuse Occurring Often, % (n) ^c
Psychological/emotional	44.6 (372)	47.3 (176)	57.3 (212)
Called you a name or criticized you	30.2 (245)		
Shouted or swore at you	25.3 (209)		
Been possessive or jealous of someone close to you	17.6 (139)		
Control	4.1 (34)	29.4 (10)	88.2 (30)
Routinely checked up on you in a way that made you afraid	2.5 (21)		
Put you on an allowance	1.7 (14)		
Not letting you go to work or social activities or see or talk with your friends	1.3 (12)		
Threat	11.7 (98)	23.5 (23)	48.0 (47)
Said things to scare you	6.0 (50)		
Threw, hit, kicked, or smashed something	8.5 (71)		
Physical	3.8 (38)	31.6 (12)	40.6 (13)
Pushed, grabbed, or shoved you	2.6 (22)		
Slapped, hit, or punched you	1.7 (14)		
Hit you with an object	1.0 (8)		
Choked or attempted to drown you	0.7 (6)		
Sexual	3.4 (28)	21.4 (6)	46.4 (13)
Pressured you to have sex in a way you did not like or want	2.9 (24)		
Physically forced you to have sex	1.1 (9)		
Attacked the sexual parts of your body	0.5 (4)		

^aThe items listed under each type of abuse are the specific behaviors that comprise the respective type of abuse measure.

^bRespondents who refused to answer or reported "don't know" to a form of abuse question were not included in the forms of abuse calculations. Only those who refused to answer or reported "don't know" to all the forms of abuse questions within a respective type of abuse were excluded from the type of abuse estimates.

^cPercent represents those women who responded that at least one form of abuse within the specific type of abuse happened occasionally, frequently, or very frequently.

Table 2. The Extent of Multiple Abuse

Type of Abuse	Conditional Type of Abuse				
	Psychological/emotional, % (<i>n</i>)	Control, % (<i>n</i>)	Threat, % (<i>n</i>)	Physical, % (<i>n</i>)	Sexual, % (<i>n</i>)
Psychological/emotional	44.6 (372)	91.2 (31)	85.7 (84)	96.9 (31)*	89.3 (25)
Control	8.4 (31)	4.1 (34)	18.4 (18)	43.8 (14)*	32.1 (9)*
Threat	22.6 (84)	52.9 (18)	11.7 (98)	68.8 (22)*	50.0 (14)
Physical	8.4 (31)	42.4 (14)*	22.7 (22)	3.8 (38)	35.7 (10)
Sexual	6.8 (25)	27.3 (9)	14.4 (14)	31.3 (10)*	3.4 (28)

Notes: Unconditional likelihoods are shown in the main diagonal in bold. The highest value in each row is indicated by an asterisk. The conditional type of crime is not necessarily temporally prior to the type of row abuse.

for the other types of abuse. Almost three-fourths of the women (73%, *n* = 66) reported that a relative—child, grandchild, or other relative—had threatened them, compared with 21% of women who had been threatened by a spouse/boyfriend and 14% by a non-relative. A majority of the women reported that their spouse/boyfriend had perpetrated control abuse (56%, *n* = 19) and sexual abuse (73%, *n* = 19). Physical abuse did not exhibit the same pattern as to who was the perpetrator. Of the physically abused women, 45% (*n* = 14) reported that a relative had been the perpetrator, compared with 39% (*n* = 12) who reported that their spouse/boyfriend had. Almost 20% (*n* = 6) of these women reported that a non-relative had physically abused them.

The Extent and Frequency of Multiple Abuses

Table 2 presents additional insight into the multiple-abuse experiences of older women who had experienced two different types of abuse (i.e., had been victims of multiple abuse). The diagonal in bold shows the unconditional percentages, or the percentage of women who had been victims of the specific type of abuse listed in each column (same percentages as reported in Table 1). The conditional likelihood for women who had been abused in the specific manner as noted in the columns is presented in the off diagonal. For example, among the women who had been physically abused, 69% had been threatened, 44% reported having experienced control abuse, and 31% reported having been sexually abused. In more than half of the conditional likelihoods (13 out of the 20 pairs), 25% or more women had experienced multiple types of abuse. It appears that multiple abuses were characteristic of the type of abuse from which these victimized women suffered.

Two additional noteworthy multiple-abuse patterns are evident in Table 2. First, psychological/emotional abuse co-occurred with other types of abuse for a large number of older women. Among those older women who had experienced a specific type of abuse, between 86% (threat) and 97% (physical abuse) had experienced psychological/emotional abuse.

Second, the conditional likelihoods (in the off diagonal) exceed the unconditional likelihoods in their respective rows. This suggests that many older women were more likely to have experienced multiple types of abuse than one type of abuse. To illustrate, 12% of the women had been threatened, yet from twice (of those who had been psychological/emotionally abused, 23% had also been threatened) to more than five times (of those who had been physically abused, 69% had also been threatened) as many women had experienced multiple abuse in which they had also been threatened.

Extent and Frequency of Abuse Measures Refined

Two noteworthy results convinced us to refine our measures of extent and frequency of abuse. First, the extent of abuse results suggests that many older women had experienced repeat abuse and multiple types of abuse. The results in Table 2 suggest that psychological/emotional abuse occurred in conjunction with other types of abuse (control, threat, physical, or sexual). Nearly 30% (28.7%, *n* = 110) of abuse victims were multiple-abuse victims who had suffered from psychological/emotional abuse. The remaining abuse victims had experienced only one type of abuse. The majority of older abused women (67%, *n* = 262) had experienced *only* psychological/emotional abuse, and 5% (*n* = 21) had experienced *only* control, threat, physical, or sexual abuse since age 55. The analysis of those women who had *only* experienced control, threat, physical, or sexual abuse is not reported here due to the small number of cases.

In order to measure the possible effects that each of these three types of abuse experience may have had on health outcomes, we created two dummy variables that refined the extent-of-abuse measures in light of the multiple-abuse results. These new variables measured whether a woman had experienced (a) only psychological/emotional abuse, and no control, threat, physical, or sexual abuse, or (b) multiple abuses (psychological/emotional abuse plus any another type of abuse). Women who had not experienced any type of abuse since turning 55 years old were the reference group.

Table 3. Types of Abuse Since 55 Years Old and Health-Related Consequences

Variable	Type of Abuse							
	Abuse Victim, AOR ^a (95% CI)		Single Type of Abuse Victim: Psychological/emotional, AOR (95% CI)		Repeat Psychological/emotional Victim, AOR (95% CI)		Multiple Types of Abuse Victim: Psychological/emotional and Other Types, ^b AOR (95% CI)	
Health-related consequence								
Self-reported poor health status	0.96	(0.73–1.25)	1.03	(0.73–1.45)	0.86	(0.58–1.29)	0.83	(0.51–1.32)
No. of self-reported health conditions	3.6*** ^c	(1.7)	3.7***	(1.6)	3.7***	(1.6)	3.6***	(1.9)
Current health conditions								
Depression or anxiety	2.24***	(1.70–2.96)	1.74***	(1.25–2.44)	1.93***	(1.32–2.82)	1.85**	(1.17–2.92)
Digestive problems (e.g., irritable bowel, ulcer, heartburn)	1.60**	(1.22–2.09)	1.70***	(1.23–2.37)	1.45*	(1.10–2.10)	0.97	(0.61–1.56)
Chronic pain (e.g., back pain, migraines)	1.65***	(1.28–2.15)	1.60***	(1.16–2.22)	1.51*	(1.04–2.18)	1.09	(0.69–1.72)
High blood pressure or heart problems	1.22	(0.91–1.64)	1.52*	(1.04–2.23)	1.32	(0.85–2.06)	0.72	(0.43–1.20)

Notes: AOR = adjusted odds ratio. Significance of the Wald statistic: * $p < .05$; ** $p < .01$; *** $p < .001$.

^aAdjusted for age, race and ethnicity, education, marital status, income, and Appalachian descent.

^bOther types include control, threat, physical, and sexual abuse.

^cThe mean has been adjusted for age, race and ethnicity, education, marital status, income, and Appalachian decent. The standard deviation is reported in parentheses. The mean for nonvictims is 3.1 ($SD = 1.8$).

To measure repeat abuse, we created a nonrepeat-/repeat-abuse measure for those women who had experienced psychological/emotional abuse. As is shown in Table 1, 176 women (21% of the entire sample) had experienced repeated psychological/emotional abuse. Given the very small number of repeat victims within the other abuse categories, we did not create a nonrepeat-/repeat-abuse measure for these types of abuse.

Second, as the results on frequency of abuse presented in Table 1 suggest, a substantial proportion of older women had experienced abuse often. Taking into account the effects of the frequency with which these women had experienced psychological/emotional abuse or multiple types of abuse (psychological/emotional plus another type of abuse), we created four dummy variables. We further dichotomized each of the two dummy variables for specific type of abuse into two frequency groups: Rarely or Often. We found that 51% of the psychologically/emotionally abused women and 81% of the multiple-abuse victims experienced abuse often.

Bivariate and Multivariate Results: Type and Frequency of Abuse and Health Outcomes

Demographic Correlates of Type of Abuse.—To examine the bivariate effects of the demographic characteristics used as control variables in the multivariate models, we examined their relationship with the type of abuse (psychological/emotional, repeated,

and multiple abuse). The results of the chi-square test of independence showed that, of the demographic variables used as control variables in the multivariate analyses, only race was not significantly associated with any of the measures of abuse: abuse victimization ($\chi^2 = .434, df = 1, p = 0.51$), repeated psychological/emotional abuse ($\chi^2 = 0.272, df = 1, p = 0.60$), or multiple abuses ($\chi^2 = .346, df = 1, p = 0.56$). Level of education was not significantly related to experiencing multiple abuse ($\chi^2 = 0.367, df = 3, p = 0.94$). Being of Appalachian decent was not related to repeated abuse ($\chi^2 = 0.340, df = 1, p = 0.59$) or multiple abuse ($\chi^2 = 1.18, df = 1, p = 0.28$). Marital status was not related to multiple abuse ($\chi^2 = 4.89, df = 4, p = 0.30$). All of the relationships between the other control variables (e.g., age, income, and marital status) and the type of abuse were significant at $p < .05$ (the exception being the relationship between level of education and multiple abuse). A significantly larger percentage of younger older women (60–64 years old) had been abuse victims, victims of repeated abuse, and victims of multiple abuse compared with women older than age 65.

Type of Abuse and Health Outcomes.—Table 3 presents the effects of experiencing different types of abuse since age 55 on health outcomes. There are several noteworthy results. First, none of the abuse measures were significantly related to older women's self-reported poor health status. Second, older women

Table 4. Frequency of Type of Abuse Since 55 Years Old and Health-Related Consequences

Variable	Single Type of Abuse Victim: Psychological/emotional, AOR ^a (95% CI)		Multiple Types of Abuse Victim: Psychological/emotional and Other Types, AOR ^b (95 CI)	
	Rarely	Often	Rarely	Often
Health-related consequence				
Self-reported poor health status	0.91 (0.57–1.47)	1.07 (0.69–1.67)	0.51 (0.17–1.52)	0.92 (0.53–1.58)
No. of self-reported health conditions	3.3 ^{*c} (1.6)	3.8 ^{***} (1.5)	3.6 [*] (2.0)	3.6 ^{***} (1.9)
Current health conditions				
Bone or joint problem (e.g., arthritis or osteoporosis)	1.08 (0.70–1.67)	1.58 [*] (1.01–2.47)	1.62 (0.56–4.70)	1.12 (0.66–1.88)
Depression or anxiety	1.76 [*] (1.10–2.82)	2.61 ^{***} (1.69–4.03)	2.34 ^{**} (1.37–3.98)	4.06 ^{**} (1.52–10.87)
Digestive problems (e.g., irritable bowel, ulcer, heartburn)	1.77 ^{**} (1.13–2.76)	1.62 ^{***} (1.19–2.79)	1.41 (0.51–3.92)	1.21 (0.70–2.07)
Chronic pain (e.g., back pain, migraines)	1.70 [*] (1.09–2.64)	1.81 ^{**} (1.19–2.75)	1.46 (0.54–3.97)	1.38 (0.82–2.34)
High blood pressure or heart problem	1.24 (0.76–2.03)	1.77 [*] (1.03–3.02)	0.59 (0.19–1.90)	0.87 (0.49–1.56)

Notes: AOR = adjusted odds ratio. Significance of the Wald statistic: * $p < .05$; ** $p < .01$; *** $p < .001$.

^aAdjusted for age, race and ethnicity, education, marital status, income, Appalachian descent, and single control, threat, physical or sexual abuse, and multiple abuses.

^bAdjusted for age, race and ethnicity, education, marital status, income, Appalachian descent, and single psychological/emotional abuse and single control, threat, physical or sexual abuse.

^cThe mean has been adjusted for age, race and ethnicity, education, marital status, income, Appalachian descent, and as per the respective abuses noted in footnotes a and b. The standard deviation is reported in parentheses. The mean for nonvictims is 3.1 ($SD = 1.8$).

who had experienced abuse were significantly more likely than nonvictims to self-report more health conditions, on average. Third, regardless of how psychological/emotional abuse was operationalized—as occurring alone, repeatedly, or with other types of abuse—this type of abuse took a negative toll on women’s current health. Women who had been psychologically/emotionally abused reported significantly more health conditions, on average, than did women who had not been abused in this manner.

Looking at the effects of abuse on current health conditions reveals that, overall, psychological/emotional abuse, again regardless of how it was operationalized, had negative effects on abused women. First, all types of abuse increased the odds of women reporting depression or anxiety by a factor of almost 2. Second, women who had experienced only psychological/emotional abuse had increased odds of having digestive problems, high blood pressure or heart problems, or chronic pain. Third, repeated psychological/emotional abuse was associated with increased odds of digestive problems and chronic pain. Fourth, women who had experienced any abuse were not significantly more likely to have reported lung, diabetes or thyroid, stroke or nerve, or blood problems, or cancer ($p > .05$; results not shown here).

Frequency of Abuse.—Table 4 presents the effects of the frequency of different types of abuse since age 55 on health outcomes. These results show some noteworthy patterns supportive of those reported in Table 3.

First, in this study, frequency of abuse did not significantly predict women’s self-reported poor

health status. Second, abuse regardless of frequency or type was significantly associated with number of self-reported health conditions. Women who had experienced either psychological/emotional abuse or multiple abuse reported significantly more health conditions, on average, than nonvictims. Third, having experienced psychological/emotional abuse, regardless of how often, increased women’s odds of having digestive problems or chronic pain. Fourth, women who experienced psychological/emotional abuse often had increased odds of having bone or joint problems, depression or anxiety, or high blood pressure or heart problems. Fifth, regardless of the frequency or type of abuse experienced, women’s odds of reporting depression or anxiety significantly increased. Notably, for women who had often experienced multiple abuse, the odds of reporting depression or anxiety increased by a factor of 4. Last, the frequency of neither psychological/emotional nor multiple abuse was significantly related to having lung, diabetes or thyroid, stroke or nerve, or blood problems, or cancer ($p > .05$; results not shown here).

Discussion

These results shed insight on the extent and nature of different types and patterns of abuse against older women. The findings revealed that a substantial proportion, nearly half, of older women had experienced psychological/emotional, control, threat, physical, or sexual abuse since turning 55 years old. Second, the largest percentage of women had

experienced psychological/emotional abuse. Third, a notable percentage of women had experienced multiple types of abuse. Fourth, many older women had experienced abuse repeatedly and often. Lastly, there does seem to be a relationship between abuse and health problems among older women.

As the literature review stated, the effect of abuse on younger women's health is becoming well documented. However, researchers have only begun to unravel the effects of abuse on the health of older women; more study is needed. Within the broader elder abuse literature, researchers have reported that older people who suffer abuse or mistreatment experience a much higher incidence of depression (Finkelhor & Pillemer, 1988; Pillemer & Prescott, 1989); and that experiencing elder abuse or mistreatment is a risk factor for nursing home placement in the older population (Lachs, Williams, O'Brien, & Pillemer, 2002) and higher mortality rates (Lachs, Williams, O'Brien, Pillemer, & Charlson, 1998). The present results are supportive of researchers' overall conclusion: Abuse takes a negative toll on the quality of life of older persons. The current results suggest that both the physical and mental health of older women are negatively affected by abuse.

This study has three main implications for people who serve the health care needs of older women. First, with regard to those practitioners in the health care arena who provide care to older women, it is important that providers acknowledge that abuse is happening and that it is affecting the health of these older women. The present results are a first step toward aiding in the understanding that women who are experiencing abuse may not report lower general health compared with women who are not being abused, yet are more likely to experience detrimental effects to their health if one examines for specific health conditions. Second, because older women who are being abused are more likely than non-victims to report a higher total number of health conditions and to experience certain health conditions such as depression, anxiety, digestive problems, and chronic pain, these conditions may serve as red flags to health providers to screen for possible abuse within intimate-partner and interpersonal relationships. Third, the type of abuse most frequently experienced by the older women in this study was psychological/emotional abuse. This confirms findings by Harris (1996) that physical and sexual abuse decreases with age, whereas psychological abuse remains. Although great progress has been made in the elder abuse and domestic violence arenas to come to a consensus on uniform definitions of abuse, it is important to continue to define different categories of abuse (e.g., psychological, emotional, and control) because older women may have a more difficult time identifying this behavior as abuse. Zink, Regan, Jacobson, and Pabst (2003), in a qualitative study of abused women, found that in many cases women did not even

identify psychological/emotional abuse as abuse. Or women reported that things in their marriage were okay now that it was *only* psychological/emotional abuse and that the physical and sexual abuse had decreased or stopped. However, in the present study, we found that, for those women who were experiencing abuse, the likelihood that they were experiencing different kinds of abuse was high. Consequently, if an older woman does admit to one type of abuse, it is likely that she is experiencing or has experienced other types of abuse as well, and that she experiences abuse more than once and possibly often.

This study also has implications for individuals who provide social services for older women. First, it is important for providers to be trained to look for signs of psychological/emotional abuse in older women, as the present results suggest that (a) this is the type of abuse that is most likely to occur, and (b) this type of abuse is most likely to co-occur with other more severe forms of abuse. It is common for providers who suspect abuse to make referrals to agencies such as adult protective services. However, in the case of domestic abuse, this may be an inappropriate referral. In many states, adult protective services is only allowed to intervene if the victim is physically or mentally impaired, which may not be the case in every instance. Consequently, neither the cause nor the effects of the abuse will be addressed. Many people who provide services to the elderly are taught to think only about caregiver stress as a possible cause of abuse. In such cases, they may make referrals to get aging service providers into the home. In some situations this may exacerbate an already abusive situation. Advocates such as Brandl (1997) and researchers (Fisher et al., 2003; Vinton, 2003) have suggested that professionals in the aging field need to be more informed about the resources available for the victims of domestic violence. Similarly, professionals in the domestic violence field need to become more familiar with the resources available on aging (Fisher et al., 2004; Grossman & Lundy, 2003). As women who are being abused continue to age and live longer, it will become increasingly imperative that more and more cross-training take place between these two fields. Lastly, this study found that control, threat, physical, and sexual abuse is perpetrated by many people who are routinely involved in their victim's lives. The perpetrator can be a spouse or boyfriend, other relative, or non-relative. Consequently, health care and social service providers need to insist, if possible, for a few minutes alone with the older woman to question her about possible abuse and even the identity of the abuser.

This study is not without limitations. First, this is a cross-sectional study, which limits our ability to make causal inferences about the effects of health and abuse. We are unable to ascertain if abuse is the cause of the increase in health conditions or if having

more health conditions puts women at more risk for being abused. Second, many of the potential survey respondents were never reached, and, because of the Health Insurance Portability and Accountability Act regulations, we were unable to find out any information on non-responders. Third, the abuse and health information is uncorroborated self-report and could not be confirmed through medical record review. The abuse is also self-report; however, because women are unlikely to report abuse, the abuse reported for this study may actually be an underreporting of the abuse taking place. Fourth, interviewers asked women to recall events that may have happened several years ago. It must also be kept in mind that the marital status and abuse relationship is one that must be viewed with caution. Respondents were asked about their current marital status—not their marital status at the time of the abuse. A respondent may have been abused by her spouse a year ago, and the spouse has since died.

Despite its limitations, this study is an important first step in documenting the existence of the different types of abuse happening to older women, its repetitive nature and frequency, and its effect on health. It is imperative that health care and service providers be aware of the health implications of abuse and understand the need for identification and training in both aging and domestic violence. As the population continues to age, awareness of resources available through both aging and domestic violence networks will become necessary.

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