Effect of Caring for an Abusive Parent on Mental Health: The Mediating Role of Self-Esteem

Jooyoung Kong, PhD

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

The Gerontologist
cite as: *Gerontologist*, 2018, Vol. 58, No. 3, 456–466
doi:10.1093/geront/gnx053
Advance Access publication 26 May 2017

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

Research Article

Effect of Caring for an Abusive Parent on Mental Health: The Mediating Role of Self-Esteem

Jooyoung Kong, PhD*

Center for Healthy Aging, College of Health and Human Development, Pennsylvania State University, University Park, Pennsylvania.

*Address correspondence to: Jooyoung Kong, Center for Healthy Aging, College of Health and Human Development, Pennsylvania State University, 422 Biobehavioral Health Building, University Park, PA 16802. E-mail: jzk255@psu.edu.

Received: November 29, 2016; Editorial Decision Date: March 30, 2017

Decision Editor: Rachel Pruchno, PhD

Abstract

Background and Objectives: This study examines a sample of filial caregivers to investigate whether and how a history of childhood abuse is associated with caregivers' mental health (i.e., depressed affect, psychological well-being, and life satisfaction). This study also investigates the mediational role of self-esteem between caring for an abusive parent and the mental health outcomes.

Research Design and Methods: Using the 2004–2006 National Survey of Midlife Development in the United States, data from 219 filial caregivers were analyzed. A series of ordinary least squares (OLS) regression and mediational analyses were conducted to estimate the direct and indirect effects of providing care to an abusive parent on negative affect, psychological well-being, and levels of life satisfaction.

Results: Key results showed that providing care to an abusive parent was associated with greater depressed affect and lower levels of life satisfaction. In addition, self-esteem served as a significant mediator: providing care to an abusive parent was associated with lower self-esteem, which was, in turn, ultimately associated with greater depressed affect, diminished psychological well-being, and lower levels of life satisfaction.

Discussion and Implications: Filial caregivers with a history of childhood abuse should be acknowledged as a high-risk group of caregivers so that they can gain attention and support for targeted interventions. Additionally, evidence-based intervention programs (e.g., improving self-esteem issues) should be designed and implemented to address this group's unique challenges and concerns.

Keywords: Caregiver stress process, Childhood abuse, Parental caregiving

Parental childhood abuse has detrimental effects on the child victims throughout their life course (Corwin & Keeshin, 2011). Particularly, adults with a history of childhood abuse are more likely to experience interpersonal conflicts and difficulties than adults without such a history (Milkulincer & Shaver, 2007). Empirical research has shown that childhood abuse is linked to fears of intimacy (Paradis & Boucher, 2010), dysfunctional intimate relationships (Riggs, Cusimano, & Benson, 2011), and lack of social supports and networks in adulthood (Sperry & Widom, 2013).

However, little is known about whether and how adults with a history of childhood abuse relate to their abusive parent(s) in later life. Perhaps many assume that these adults would sever the relationship with the abusive parent; however, empirical and clinical evidence suggests that, despite past abuse, adult victims maintain intergenerational relationships (Span, 2014). Some even provide long-term

© The Author(s) 2017. Published by Oxford University Press on behalf of The Gerontological Society of America. All rights reserved.
For permissions, please e-mail: journals.permissions@oup.com.

care and assistance for their abusive parent, which could provoke substantial distress (Kong & Moorman, 2015).

To address this gap in the literature, the current study focuses on a sample of 219 filial caregivers from 2004 to 2006 National Survey of Midlife Development in the United States (MIDUS). Based on the *life course* and *stress process* perspectives (Pearlin, 2010; Pearlin, Mullan, Semple, & Skaff, 1990), this study (a) examines the effects of providing care to an abusive/non-abusive parent on mental health outcomes, including negative affect, psychological well-being, and levels of life satisfaction, and (b) investigates whether self-esteem mediates these associations. By revealing the vulnerability of filial caregivers who experienced abusive treatment from the parent they are currently caring for, this study will provide important practice implications for addressing their specific challenges and concerns.

Theoretical Consideration: Life Course and Stress Process Perspectives

The stress process model focuses on the social origins of stress and its manifesting process through the concepts of *stressors*, *stress outcomes*, and *mediators*. The stress process model explains stress dynamics in informal caregiving (Pearlin et al., 1990). Caregiving *stressors* are, for example, characteristics related to caregivers (e.g., socio-economic status) and their care recipient (e.g., functional limitations), or to the caregiving demands (e.g., weekly hours of caregiving). These stressors result in caregiving *outcomes*, such as the undermining of a caregiver's physical and mental health or disruption of his/her social and cognitive functioning. In this process, caregivers mobilize psychological resources (e.g., self-esteem) or specific coping strategies (e.g., emotion-focused coping)—that is, *mediators*—that influence the impact of stressors on specific outcomes (Pearlin et al., 1990; Thoits, 1995).

A recent work by Pearlin (2010) asserted that the realm of the stress process model can be further expanded by incorporating the life course perspective, which posits that life trajectories are continuous and thus early childhood experiences and conditions have profound, life-long impacts (Elder, Johnson, & Crosnoe, 2003). According to the *linked lives* principle of the life course perspective, the lives of individuals are interdependent on the lives of family and friends, mutually influencing significant life events and transitions over the life course (Elder, 1994; Silverstein & Giarrusso, 2010). This theorizing of interdependent lives suggests that despite childhood abuse, adult victims may remain bound in a relationship with their abusive parent and perform their filial roles by caring for that parent (Kong & Moorman, 2015). This fulfillment of caregiving, however, may exact a greater toll because of their traumatic memories of abuse or because of unresolved toxic emotions towards the abusive parent.

Effect of Caring for an Abusive Parent on Mental Health

Due to the paucity of research, much remains unclear on whether and how a history of parental childhood abuse leads to negative caregiver outcomes. Kong and Moorman (2015) was the first empirical study to examine the effects of parental childhood maltreatment on caregiver depression. Using the 2004–2005 Wisconsin Longitudinal Study, the authors analyzed 1,001 filial caregivers and found that approximately 20% of the sample reported having been verbally, physically, or sexually abused by either or both parents. For these maltreated caregivers, providing care to an abusive or neglectful parent was associated with more frequent depressive symptoms compared to non-maltreated caregivers. Also, the use of emotion-focused coping strategies (i.e., avoidance and disengagement) worsened depressive symptoms among the maltreated caregivers more than these same strategies did among their non-abused counterparts. Wuest and colleagues (2007) found something similar: although they did not explicitly measure a history of childhood abuse, they analyzed a sample of 236 female caregivers to examine how the quality of past relationships (defined as the degree of respect and affection, as well as conflict and abuse) between caregiver and care recipient affected caregivers' health (defined to include physical, emotional, cognitive, and relational aspects). The authors found that poor-quality past relationships—which could have included abusive treatment—posed a threat to the overall health of the caregivers.

Self-Esteem as a Potential Mediator between Caring for an Abusive Parent and Mental Health

This study posits that self-esteem is a potential mechanism that intervenes in the association between providing care to an abusive parent and experiencing negative outcomes from the caregiving relationship. This hypothesis is based on the findings of prior studies that adults with a history of childhood abuse may exhibit *fragile or unstable self-esteem* (Pavlova, Uher, Dennington, Wright, & Donaldson, 2011). First, existing literature has consistently shown that childhood abuse jeopardizes victims' development of self-worth; because of the inconsistent, unresponsive, and abusive care from the parent(s), child victims come to believe that their inner feelings and desires are not important, and thus they perceive themselves as unworthy and unlovable (Riggs, 2010; Widom, Kahn, Kaplow, Kozakowski, & Wilson, 2007). Additionally, prior studies suggest that low levels of self-esteem may involve *self-esteem instability* (Leeuwis, Koot, Creemers, & Lier, 2015). That is, individuals with *low, fragile* self-esteem may experience fluctuations of their feelings of self-worth depending on everyday vicissitudes and life events, such as interpersonal rejection or specific failures in tasks (Kernis, 2005; Sowislo, Orth, & Meier, 2014). The speculation was then that caring for an abusive

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

parent may trigger this fragile self-esteem and damage adult victims' feelings of self-worth even further because they have to interact closely with the same individual who used to (or continues to) be abusive and who seeded their low self-esteem in the first place.

However, in the caregiving context, self-esteem plays a significant role as a coping mechanism, and low self-esteem can pose further risks to a caregiver's mental health. Costa-Requena and colleagues (2012) analyzed a sample of 159 caregivers and found that their low self-esteem predicted greater depression and anxiety symptoms. Similarly, Bakas and Burgener (2002) studied a sample of 104 family caregivers of stroke survivors and found that caregivers' low self-esteem was associated with greater emotional distress. On the other hand, positive assessment of capability and self-worth plays a protective role by mitigating the negative effects of caregiving. For example, Au and colleagues (2010) interviewed 134 family caregivers and found that caregivers' confidence in their ability to control negative thoughts about caregiving was, indeed, associated with lower depressive symptoms. Taken together, these findings imply that for adults with a history of childhood maltreatment, providing care to an abusive parent could be associated with impaired mental health partly because they feel less self-worth in the particular situation. Self-esteem, however, is a resource of resilience that could otherwise enable them to cope more effectively with their caregiving demands.

Based on the theoretical considerations and the review of related literature, this study aims to examine the mental-health effects of providing care to an abusive parent and the mediational role that self-esteem might play in this association. Specifically, the following hypotheses are tested: (a) for adults with a history of childhood abuse, providing care to an abusive parent will be associated with greater depressed affect, lower psychological well-being, and lower levels of life satisfaction compared to their non-abused counterparts, and (b) self-esteem will mediate the aforementioned associations.

Methods

Sample

This study used data from the National Survey of Midlife Development in the United States (MIDUS). The first wave of MIDUS (MIDUS I) was conducted from 1995 to 1996 and surveyed a nationally representative sample of 7,108 non-institutionalized, English-speaking adults. The estimated response rate for MIDUS 1 was 61% (Mroczek & Kolarz, 1998). The second wave of the MIDUS (MIDUS II) was conducted from 2004 to 2006, and a total of 4,963 adults—that is, 69.8% of the MIDUS I respondents—participated in the telephone interview, and 81% of these respondents (n = 4,041) responded to a self-administered questionnaire (Ryff et al., 2012).

In the current study, the final study sample comprises 219 filial caregivers who have given personal care to their father or mother because of a physical or mental condition, illness, or disability for a period of one month or more, during the last 12 months. The MIDUS II was used for most variables except for the childhood abuse measure, which was only available in MIDUS I. Unweighted data were used for data analyses. According to the comparison of socio-demographic characteristics between the MIDUS sample and the Current Population Survey, the unweighted MIDUS sample under-represented African Americans, less-educated individuals (high school graduates or adults with less than a high school education), and young adults (Ryff et al., 2012).

Measures

Depressed Affect

Depressed affect was measured by six items suggested by Mroczek and Kolarz (1998). Items include "During the past 30 days, how much of the time did you feel (a) so sad nothing could cheer you up; (b) nervous; (c) restless or fidgety; (d) hopeless; (e) that everything was an effort; and (f) worthless?" Participants rated the items on a 5-point scale (1 = *none of the time*, 2 = *a little of the time*, 3 = *some of the time*, 4 = *most of the time*, 5 = *all of the time*). The total score was calculated by averaging the six items, and the internal consistency was high with Cronbach's alpha value of 0.86. To correct a positive skew, the variable was top-coded at 3.

Psychological Well-being

Psychological well-being was measured by the Ryff Scale of Psychological Well-being (Ryff & Keyes, 1995). A total of 42 items were used to measure six different dimensions: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. First, autonomy indicates "a sense of self-determination" (Ryff & Keyes, 1995, p. 720) and consists of seven items, such as an item of "I have confidence in my opinions even if they are contrary to the general consensus." Environmental mastery indicates "the capacity to manage effectively one's life and surrounding world" (Ryff & Keyes, 1995, p. 720) and consists of seven items (e.g., "In general, I feel I am in charge of the situation in which I live."). Personal growth indicates "a sense of continued growth and development as a person" (Ryff & Keyes, 1995, p. 720) and consists of seven items (e.g., "I have the sense that I have developed a lot as a person over time."). Positive relations with others indicate "the possession of quality relations with others" (Ryff & Keyes, 1995, p. 720) and consists of seven items (e.g., "people would describe me as a giving person, willing to share my time with other."). Purpose in life indicates "the belief that one's life is purposeful and meaningful" (Ryff & Keyes, 1995, p. 720) and consists of seven items (e.g., "I am an active person in carrying out the plans I set for myself."). Lastly, self-acceptance indicates "positive evaluations of oneself and one's past life" (Ryff & Keyes, 1995, p. 720)

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

and consists of seven items (e.g., "In general, I feel confident and positive about myself."). Each item uses a seven-point Likert scale (1 = strongly disagree ~ 7 = strongly agree). The total psychological well-being score was computed by averaging the 42 items, and the internal consistency was high with Cronbach's alpha value of 0.94.

Life Satisfaction

Life satisfaction was measured by five items suggested by Prenda and Lachman (2001). Using the 0 to 10 scale, respondents were asked to rate their satisfaction with the five different domains: life overall, work, health, relationship with spouse/partner, and relationship with children. The internal consistency was acceptable with Cronbach's alpha value of 0.59.

Parental Childhood Abuse

A history of parental childhood abuse was assessed by three dimensions: verbal abuse, physical abuse, and severe physical abuse. The items were drawn from the Conflict Tactics Scale (Straus, Gelles, & Steinmetz, 1980), which has been widely used in family violence research (Straus, 2007). Verbal abuse was measured by the item: "During your childhood, how often did your mother/father or the woman/man raised you, insult you or swear at you, sulk or refuse to talk to you, stomp out of the room, do or say something to spite you, threaten to hit you, smash or kick something in anger?" Physical abuse was measured by the item: "During your childhood, how often did your mother/father or the woman/man raised you, push, grab, or shove you, slap you, throw something at you?" Severe physical abuse was measured by the item: "During your childhood, how often did your mother/father or the woman/man raised you, kick, bite, or hit you with a fist, hit or try to hit you with something, beat you up, choke you, burn or scald you?" Participants rated each item on a 4-point scale (1 = *never*, 2 = *rarely*, 3 = *sometimes*, 4 = *often*). Those who reported the *sometimes* or *often* categories were considered as being abused.

In order to assess the effect of being abused by a particular parent on caregiving outcomes, the childhood abuse variable was matched with the information regarding to whom the care has been provided. This yielded the final childhood abuse variable that has three mutually exclusive categories: (a) no history of childhood abuse and cared for a parent (reference category); (b) experienced parental abuse and cared for that abusive parent; and, (c) experienced parental abuse and cared for a non-abusive parent. When a caregiver provided care for both an abusive parent and a non-abusive parent, the case was coded as (b) experienced parental abuse and cared for that abusive parent.

Self-Esteem

Self-esteem was assessed by six items from the Rosenberg's Self-esteem scale (Rosenberg, 1965). The items include "I take a positive attitude toward myself," "At times I feel that I am no good at all," "I am able to do things as well as most people," "I wish I could have more respect for myself," "On the whole, I am satisfied with myself," "I certainly feel useless at times." Participants rated the items on a 7-point scale (1 = *strongly disagree*, 2 = *somewhat disagree*, 3 = *a little disagree*, 4 = *neither agree or disagree*, 5 = *a little agree*, 6 = *somewhat agree*, 7 = *strongly agree*). The total score was calculated by averaging the six items, and the reliability for the scale was high with Cronbach's alpha value of 0.83.

Caregiving Context

Caregiving context was assessed by three dimensions: years of caregiving, weekly hours of caregiving, and coresidence with care recipient. First, years of caregiving was calculated by subtracting the date of respondents started caregiving from the date when they completed the telephone survey. Weekly hours of caregiving was to assess the intensity of caregiving. Respondents were asked how many hours per week on average they helped the care recipient. Coresidence with care recipient was another measure to assess the intensity of caregiving. Respondents were asked whether their care recipient lived with them in their household during the period of providing care (1 = *yes*, 0 = *no*).

Socio-Demographic Covariates

Several covariates were added to control for socio-demographic characteristics, including respondents' age, gender, race (*White*, *others*), marital status (*married*, *non-married*), and self-rated health (*excellent/very good/good*, *fair/poor*), and education (1 = *no school/some grade school* ~ 12 = *PhD-level degree*).

Analytic Strategy

A series of ordinary least squares (OLS) regression was performed to estimate the direct effects of providing care to an abusive/non-abusive parent on negative affect, psychological well-being, and life satisfaction (Figure 1). In addition, single mediation analyses were performed to estimate

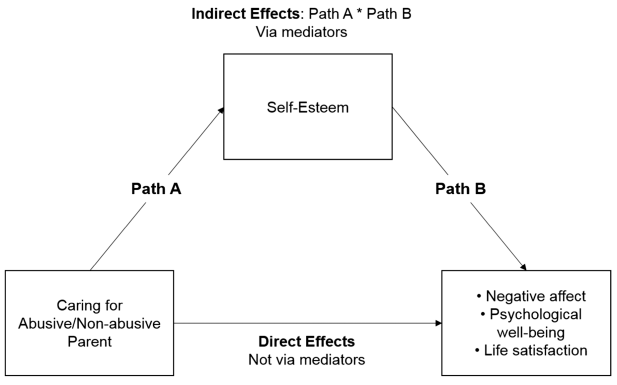

Figure 1. A conceptual model of mediation. The mediational effects of self-esteem were computed by multiplying path A and B coefficients.

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

the mediational role of self-esteem in the aforementioned associations (Figure 1). Mediating effects were computed using the *product of the coefficients methods* suggested by Preacher and Hayes (2008), which involved the following steps. First, path A coefficient was estimated by regressing self-esteem on caregiving status. Second, path B coefficient was estimated by regressing each of the caregiving outcomes on self-esteem adjusted for caregiving status. Lastly, path A and B coefficients were multiplied to compute the mediational effects of self-esteem. The analyses were performed in Stata version 14 using the *sureg* and *nlcom* commands. The nlcom command calculates standard errors using the delta methods (Preacher & Hayes, 2008). To correct for 15 nested siblings, the robust standard errors option was considered, which yielded negligible differences from the results without the option. Thus, the final analyses did not take into account nested siblings.

In each of the three models predicting negative affect, psychological well-being, and life satisfaction, completed data were provided by 66% of the total sample. The self-esteem variable reported the most missing data (n = 45; 20.6% of the total sample size). To address missing cases, multiple imputation was conducted using the Stata imputation by chained equations procedure by generating twenty imputed datasets (Royston, 2004).

Results

Table 1 presents descriptive characteristics of the study sample of filial caregivers. Approximately, a quarter of the study sample (26.0%) experienced verbal, physical, or severe physical abuse and provided care to the abusive parent. More than half of the study sample were female (66.2%) and married (63.5%). The majority was White (82.7%) and reported good, very good, or excellent health status (85.4%). The average age of the total study sample was 52 years old (range: 34–84 years). Approximately, one third of the study sample (32.9%) lived with their care recipient when providing care, and about half (49.3%) provided care for more than 14 h a week. More than 70% of the sample (n = 156) had been providing care less than 3 years.

Table 2 shows the result of one-way ANOVA comparing the mean levels of depressed affect, psychological well-being, life satisfaction, and self-esteem among three groups of filial caregivers who: (1) never experienced abuse and cared for a parent, (2) experienced parental abuse and cared for that abusive parent, and (3) experienced parental abuse and cared for a non-abusive parent. The findings showed that there was a statistical difference among the three groups of caregivers after adjusting the p values for multiple comparisons. Specifically, respondents who experienced parental abuse and cared for an abusive parent had significantly higher depressed affect and lower levels of psychological well-being, life satisfaction, and self-esteem compared to those who did not experience abuse and cared for a parent. There was no significant mean difference between respondents experienced parental abuse and cared for a non-abusive parent and those did not experience abuse and cared for a parent. Furthermore, the supplementary analysis was conducted by including a group of non-caregivers. The results showed that respondents who experienced parental abuse and cared for an abusive parent showed significantly higher depressed affect than those who experienced parental abuse and did not provide filial care (1.83 vs. 1.57, $p < .05$). However, respondents who experienced parental abuse and cared for a non-abusive parent did not show higher depressed affect than those who experienced parental abuse and did not provide filial care (1.55 vs. 1.57, p = ns). These findings support that filial caregiving for an abusive parent, *not childhood abuse*, may be associated with caregivers' mental health.

Table 3 provides summary results of the direct effects of providing care to an abusive/non-abusive parent on negative affect, psychological well-being, and life satisfaction; respondents who did not experience abuse and cared for a parent was the reference category. First, providing care to an abusive parent was associated with greater depressed affect (b = 0.19, $p < .05$) after controlling for socio-demographic characteristics (i.e., gender, race, marital status, age, educational attainment, self-reported health status) and caregiving demands (coresidence with care recipient, weekly hours of caregiving, duration of caregiving). Also, providing care to an abusive parent was associated with lower level of life satisfaction (b = –0.47, $p < .05$). Providing care to a non-abusive parent (e.g., having been abused by father and providing care to mother) was not directly associated with any of the caregiving outcomes after controlling for the covariates.

Table 4 provides summary results of the mediation analyses. In each model, the two groups of respondents (a) who experienced parental abuse and cared for that abusive parent and (b) who experienced parental abuse and cared for a non-abusive parent were compared to the reference group of those who did not experience abuse and cared for a parent. Also, each model included covariates of socio-demographic characteristics and caregiving demands. First, Model 1 tested the mediational role of self-esteem in the association between caregiving status and negative affect. The results showed that providing care to an abusive parent was associated with lower self-esteem (b = –0.41, $p <$ .05). Also, self-esteem was negatively associated with negative affect (b = –0.23, $p < .001$). The product of the two coefficients was statistically significant (b = 0.09, $p < .05$) supporting that self-esteem as a significant mediator. That is, providing care to an abusive parent was associated with lower self-esteem, which was ultimately associated with greater depressed affect. Model 2 tested the mediational role of self-esteem in the association between caregiving status and psychological well-being. Consistent with Model 1, providing care to an abusive parent was associated with lower self-esteem (b = –0.45, $p < .05$). Also, self-esteem

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

Table 1. Descriptive Statistics of Filial Caregivers in MIDUS II (*N* = 219)

Variables	*N*	%	*N* Missing (%)
History of Childhood Abuse			20 (9.13)
Never abused and caregiving	112	51.14	
Experienced parental abuse and cared for an abusive parent	57	26.03	
Experienced parental abuse and cared for a non-abusive parent	30	13.70	
Gender			0 (0)
Male	74	33.79	
Female	145	66.21	
Race			20 (9.13)
White	181	82.65	
Others	18	8.22	
Marital status			0 (0)
Married	139	63.47	
Non-married	80	36.53	
Educational attainment			0 (0)
Up to high school graduate	62	28.32	
Up to college graduate	119	54.34	
Above college education	38	17.35	
Self-reported health			0 (0)
Excellent/very good/good	187	85.39	
Fair/poor	32	14.61	
Coresidence with care recipient			0 (0)
Yes	72	32.88	
No	147	67.12	
Weekly hours of caregiving			15 (6.85)
Less than 7 h	50	22.83	
7–less than 14 h	46	21.00	
14–less than 28 h	57	26.03	
28–less than 42 h	21	9.59	
42 h or more	30	13.70	
Duration of caregiving			5 (2.28)
Less than a year	87	39.73	
1 year–less than 3 years	69	31.51	
3 years–less than 5 years	22	10.05	
5 years and more	36	16.44	
	Mean (*SD*)	Observed Min./Max.	*N* Missing (%)
Age	52.05 (9.29)	34/84	0 (0)
Depressed affect	1.58 (0.54)	1/3	43 (19.63)
Psychological well-being	5.54 (0.54)	2.85/6.9	42 (19.18)
Life satisfaction	7.77 (1.19)	3/10	42 (19.18)
Self-esteem	5.66 (1.15)	2.17/7	45 (20.55)

Note: Descriptive statistics are reported prior to multiple imputation. Analyses used unweighted data.

was positively associated with psychological well-being ($b = 0.58$, $p < .001$). Based on the product of the two coefficients, self-esteem was a significant mediator ($b = -0.26$, $p < .05$) that providing care to an abusive parent was associated with lower self-esteem, which was ultimately associated with diminished psychological well-being. Similar results were found in Model 3 that examined the mediational role of self-esteem in the association between caregiving status and level of life satisfaction. Providing care to an abusive parent was associated with lower self-esteem ($b = -0.48$, $p < .05$), and self-esteem was positively associated with level of life satisfaction ($b = 0.44$, $p < .001$). Consistent with the previous models, self-esteem was a significant mediator ($b = -0.21$, $p < .05$) that providing care to an abusive parent was associated with lower self-esteem, which was ultimately associated with lower level of life satisfaction. Throughout the models, providing care to a non-abusive parent (e.g., having been abused by father and providing care to mother) was not significantly associated with the levels of self-esteem, and thus self-esteem was not a significant mediator between providing care to a non-abusive parent and the mental health outcomes.

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

Discussion

Based on the *life course* and *stress process* perspectives, this study examined a sample of filial caregivers and investigated whether and how a history of parental childhood abuse was associated with caregivers' mental health (i.e., depressive symptoms, psychological well-being, and life satisfaction). This study also examined the mediational role of self-esteem in the links between providing care to an abusive parent and specific mental health outcomes.

Caring for an Abusive Parent and Negative Mental Health

There was partial support for the first hypothesis that providing care to an abusive parent was directly associated with greater depressed affect and lower levels of life satisfaction, although psychological well-being was not significantly affected. Notably, providing care to a non-abusive parent was not directly associated with any of the mental health outcomes.

These findings indicate that caring for an abusive parent has a distinct toxic effect, above and beyond the effects of childhood abuse and the general stress and strain of caregiving. This is consistent with the findings of Kong and Moorman (2015) that showed a significant association between providing care to an abusive parent and caregiver depressive symptoms. However, the current study also made further advancements by addressing lingering questions unanswered by Kong and Moorman (2015): first, when predicting caregivers' mental health, this study controlled for the effects of caregiving demands, which are known to be significant predictors of caregiver outcomes (e.g., Pioli, 2010), by including covariates of weekly hours of caregiving, years of providing care, and co-residence with care recipient. Furthermore, whereas Kong and Moorman (2015) used data from samples collected exclusively from the state of Wisconsin, the current study used the MIDUS II, a large national study whose original sample included participants from a wider variety of geographical locations (e.g., oversamples from five metropolitan areas).

Table 2. Bivariate Analyses of Key Variables by Caregiving Status ($N = 219$)

Variables	Never abused and cared for a parent	Experienced parental abuse and cared for an abusive parent	Experienced parental abuse and cared for a non-abusive parent	*F* test
Negative affect	**1.45**	**1.83**	1.55	8.59***
Psychological well-being	**5.74**	**5.27**	5.34	6.23**
Life satisfaction	**8.07**	**7.25**	7.89	8.19***
Self-esteem	**5.96**	**5.20**	5.5	7.49***

Notes: One-way analysis of variance (ANOVA) analysis was performed. Values in bold indicate a significant difference between the two groups. Analyses used unweighted data.
Significance levels are denoted as $*p < .05$, $**p < .01$, $***p < .001$. *p* values for post hoc pairwise comparisons were adjusted for multiple testing based on Bonferroni correction.

Table 3. Findings of OLS Regression Analyses: Direct effects of Providing Care to Abusive/Non-abusive Parent on Caregiver Mental Health ($N = 219$)

	Negative affect	Psychological well-being	Life satisfaction
	b (*SE*)	*b* (*SE*)	*b* (*SE*)
Experienced parental abuse and cared for an abusive parent[a]	0.19 (0.09)*	−0.24 (0.15)	−0.47 (0.21)*
Experienced parental abuse and cared for a non-abusive parent[a]	0.13 (0.11)	−0.30 (0.18)	−0.16 (0.24)
Female	0.10 (0.09)	0.12 (0.13)	0.07 (0.18)
White	−0.21 (0.15)	0.13 (0.21)	−0.20 (0.29)
Age	−0.01 (0.00)*	0.02 (0.01)**	0.03 (0.01)**
Married	0.08 (0.08)	0.03 (0.13)	0.41 (0.18)*
Education	−0.04 (0.02)*	0.06 (0.02)*	0.08 (.04)
Good/excellent health	−0.62 (0.10)***	0.40 (0.17)*	0.87 (0.23)***
Coresided with care recipient	0.16 (0.08)	−0.24 (0.13)	−0.47 (0.18)**
Weekly hours of caregiving[b]	−0.02 (0.03)	−0.07 (0.05)	0.00 (0.06)
Duration of caregiving[c]	−0.02 (0.03)	−0.04 (0.06)	−0.04 (0.08)
Constant	2.94 (0.32)***	3.95 (0.55)***	5.05 (0.75)***

[a]*Never abused and cared for a parent* was the reference group. [b]Weekly hours of caregiving was considered as a scale variable with five categories: (a) less than 7 h, (b) 7–less than 14 h, (c) 14–less than 28 h, (d) 28–less than 42 h, and (e) 42 h or more. [c]Duration of caregiving was considered as a scale variable with four categories: (a) less than a year, (b) 1 year–less than 3 years, (c) 3 years–less than 5 years, (d) 5 years and more. Analyses used unweighted data.
Significance levels are denoted as $* p < .05$, $** p < .01$, $*** p < .001$.

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

Table 4. Mediational Analysis: Self-esteem as a Mediator between Providing Care to Abusive/Non-abusive Parent and Caregiver Mental Health (*N* = 219)

Model 1 Caregiving → Self-esteem → Negative affect			
	Path A: predicting self-esteem	Path B: predicting negative affect	Path A * Path B: Indirect effects
	b (*SE*)	*b* (*SE*)	*b* (*SE*)
Experienced parental abuse and cared for an abusive parent[a]	−0.41 (0.19)*		0.09 (0.04)*
Experienced parental abuse and cared for a non-abusive parent[a]	−0.44 (0.24)		0.10 (0.06)
Self-esteem		−0.23 (0.03)***	
Model 2 **Caregiving → Self-esteem → Psychological well-being**			
	Path A: predicting self-esteem	Path B: predicting psychological well-being	Path A * Path B: Indirect effects
	b (*SE*)	*b* (*SE*)	*b* (*SE*)
Experienced parental abuse and cared for an abusive parent[a]	−0.45 (0.20)*		−0.26 (0.12)*
Experienced parental abuse and cared for a non-abusive parent[a]	−0.42 (0.24)		−0.25 (0.14)
Self-esteem		0.58 (0.03)***	
Model 3 **Caregiving → Self-esteem → Life satisfaction**			
	Path A: predicting self-esteem	Path B: predicting life satisfaction	Path A * Path B: Indirect effects
	b (*SE*)	*b* (*SE*)	*b* (*SE*)
Experienced parental abuse and cared for an abusive parent[a]	−0.48 (0.19)*		−0.21 (0.09)*
Experienced parental abuse and cared for a non-abusive parent[a]	−0.42 (0.25)		−0.19 (0.12)
Self-esteem		0.44 (0.07)***	

Note. [a]Never abused and cared for a parent was the reference group. Each analysis model include socio-demographic controls (gender, race, age, marital status, education, and self-reported health) and caregiving context variables (coresidence with a care recipient, weekly hours of providing care, and years of providing care). Significance levels are denoted as * $p < .05$, ** $p < .01$, *** $p < .001$. Analyses used unweighted data.

Providing care to an abusive parent may exact an extended toll because of its potential to remind the caregiver perennially of past abuse. At the same time, the possibility of *continued* abuse (e.g., verbal abuse) cannot be ruled out either. Similarly, even if not being outright abusive, a formerly abusive parent might still have a difficult personality, with behavioral and emotional issues, which could, in turn, make the caregiving experience uniquely challenging (Pinquart & Sörensen, 2003). Alternatively, while the caregiving literature suggests that close relationships between caregiver and care recipient predict positive caregiving outcomes (Merz, Consedine, Schulze, & Schuengel, 2009), adults with a history of childhood abuse may find past abuse continuing to interfere in the contemporary relationship with the abusive parent. As a result, these caregivers may appraise or perceive the caregiving situation and close contact with the parent as being highly stressful.

The primary focus of the current study was the comparison between abused and non-abused caregivers. However, further research should explore the comparison between the two abused caregiver groups: adult children who experienced parental abuse and cared for an abusive parent and those who experienced parental abuse and cared for a non-abusive parent. The bivariate analysis showed that these

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

two groups were not significantly different in terms of the mean levels of mental health outcomes. However, it is still an interesting question whether and how an individual's history of childhood abuse affects the contemporary relationship with his or her non-abusive parent.

Caring for Abusive Parent: Threats to Self-Esteem

The study's second hypothesis was also supported: self-esteem significantly mediated the association between caring for an abusive parent and negative mental health outcomes for the caregiver, including depressive symptoms, psychological well-being, and levels of life satisfaction. To better understand this result, it is important to attend to the finding that for the other group of abused adults who provided care to a non-abusive parent (e.g., having been abused by father and providing care to mother), caregiving was not significantly associated with the level of self-esteem. These findings imply that self-esteem may be negatively affected because of filial caregiving for an abusive parent rather than childhood abuse. The current study expands prior research about the links between childhood abuse, self-esteem and negative mental health (Finzi-Dottan & Karu, 2006; Sachs-Ericsson et al., 2010, Stein, Leslie, & Nyamathi, 2002) by showing that providing care to an abusive parent could *exacerbate* self-esteem issues in adults with a history of childhood abuse, and thus may trigger poor mental health outcomes. This process can be described as *stress proliferation*, a term which refers to how "exposure to one stressor, regardless of whether it is an event or more chronic hardship, may lead over time to exposure to other, secondary, stressors" (Pearlin, 2010, p. 209). In conjunction with the life course perspective, the stress proliferation process unfolds across a lifetime, resulting in clustered stressors and interrelated hardships (Pearlin, 2010). That is, providing care to an abusive parent is linked to experience further damage to their self-esteem. The problem is that self-esteem is an essential psychological resource determining how individuals cope with stressful situations (Steele, 1986). Prior studies showed that caregivers with high self-esteem tend to use positive, effective problem-focused coping strategies to alleviate stress, whereas those with low self-esteem employ less effective, harmful coping strategies (e.g., avoidance) that can aggravate negative stress manifestations (Mausbach et al., 2012; Thoits, 1995). Therefore, it can be speculated then that abused caregivers' low self-esteem may make them more inclined to use maladaptive coping strategies which could, in turn, impose accumulated/clustered risks on their mental health.

Limitations

This study has several limitations to consider. First, the items measuring childhood abuse were based on the retrospective reports of adult children. This measurement could involve recall bias (Ayhan & Işiksal, 2005) although it was asked at the MIDUS 1 data collection, which may minimize recall bias associated with respondents' health conditions at the MIDUS II (e.g., depression). It also does not provide accurate assessments of the timing of the abuse, its intensity and duration. In addition, although the childhood abuse items are based on the Conflict Tactics Scale (Straus, 2007), these items asked about several distinct behaviors in one single question (e.g., "During your childhood, how often did your mother or the woman who raised you, insult you or swear at you, sulk or refuse to talk to you, stomp out of the room, do or say something to spite you, threaten to hit you, smash or kick something in anger?"), which could be a source of measurement errors. On a related note, the broad scope of these items might explain the high percentage of caregivers who reported any abuse history in the study sample (i.e., 26% reported being abused as a child and providing care to the abusive parent). Second, the use of cross-sectional data does not allow conclusions about the temporal order of the variables in the mediational analyses. For example, we cannot exclude the possibility that providing care to an abusive parent is associated with greater depressive symptoms, which may lead to lower self-esteem. To strengthen the robustness of the mediation model, a longitudinal analysis approach is suggested. Furthermore, it is important to note that because variables to measure the quality of current parent-adult child relationships are not available in the MIDUS, this study was unable to consider this confounding effect, which is a significant predictor for caregiver well-being (Merz et al., 2009). Future research should examine the links between caregivers with a history of childhood abuse, the quality of contemporary parent-adult child relationships, and caregivers' mental health. Finally, the generalizability of the study findings is limited because of the use of unweighted data. Also, MIDUS II presents the issue of attrition: About 30% of the MIDUS I respondents did not participate in the second wave of the survey (Ryff et al., 2012). According to Radler and Ryff (2010) who analyzed the attrition in the MIDUS, higher retention rates were found among Whites, females, and married individuals as well as those with better health and more education.

Implications

This study provides important clinical implications. First of all, it is important to acknowledge that some adults with a history of childhood abuse do provide care to an abusive parent. According to the current study and previous research (i.e., Kong & Moorman, 2015), approximately 20–30% of filial caregivers, more than 1 in 5 caregivers, reported providing care to an abusive parent. In terms of threats to mental health, they represent a high-risk group of caregivers, who require specific practice and policy interventions. This issue, despite its importance, has rarely been discussed in academic literature or in practice. The "invisibility" of filial caregivers with a history of childhood

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

abuse implies that they may struggle to locate proper support resources, such as counseling therapy or respite care. Therefore, it is important to identify, and expand access to, support resources that can address these caregivers' particular concerns and challenges. More importantly, further research should be conducted to aid in the design and implementation of evidence-based programs for these caregivers.

When working for caregivers with mental health issues, direct practitioners should evaluate the caregivers' past relationships with their care recipients to see if the current caregiving strain can be attributed to any previous traumatic/dysfunctional experience with the parent(s). Practitioners can help these caregivers acknowledge whether there are any unresolved issues with the parent and, if so, identify ways to address them to cope better with their caregiving strains. Additionally, when creating intervention programs for previously abused caregivers, practitioners should focus on enhancing/protecting the caregivers' self-esteem. Lastly, when dealing with the abused caregivers who are in severe distress, a priority should be placed on helping them access alternative long-term care services, such as respite care, or to find secondary caregivers in order to relieve their caregiving burdens and responsibilities.

Funding

This study was partially supported by the National Institute on Aging Grant T32 AG049676 to The Pennsylvania State University.

Acknowledgements

This study is a part of the author's doctoral dissertation at Boston College and the author would like to thank dissertation committee members: Drs. James Lubben, Sara M. Moorman, and Scott D. Easton. The author is especially grateful for Dr Sara M. Moorman who provided wonderful guidance on developing and writing the earlier draft of this manuscript. There is no conflict of interest with this study.

References

Au, A., Lau, K., Sit, E., Cheung, G., Lai, M., Wong, S., & Fok, D. (2010). The role of self-efficacy in the Alzheimer's family caregiver stress process: A partial mediator between physical health and depressive symptoms. *Clinical Gerontologist*, **33**, 298–315. doi:10.1080/07317115.2010.502817

Ayhan, O., & Işiksal, S. (2005). Memory recall errors in retrospective surveys: A reverse record check study. *Quality and Quantity*, **38**, 475–493. doi:10.1007/s11135-005-2643-7

Bakas, T., & Burgener, S. C. (2002). Predictors of emotional distress, general health, and caregiving outcomes in family caregivers of stroke survivors. *Topics in Stroke Rehabilitation*, **9**, 34–45. doi:10.1310/GN0J-EXVX-KX0B-8X43

Corwin, D. L., & Keeshin, B. R. (2011). Estimating present and future damages following child maltreatment. *Child and Adolescent Psychiatric Clinics of North America*, **20**, 505–518. doi:10.1016/j.chc.2011.03.005

Costa-Requena, G., Cristófol, R., & Cañete, J. (2012). Caregivers' morbidity in palliative care unit: predicting by gender, age, burden and self-esteem. *Supportive Care in Cancer*, **20**, 1465–1470. doi:10.1007/s00520-011-1233-6

Elder, G. H. (1994). Time, human agency, and social change: Perspectives on the life course. *Social Psychology Quarterly*, **57**, 4–15.

Elder, G. H., Johnson, M. K., & Crosnoe, R. (2003). The Emergence and Development of Life Course Theory. In J. T. Mortimer & M. J. Shanahan (Eds.). *Handbook of the Life Course* (pp. 3–19). New York: Kluwer Academic/Plenum Publishers.

Finzi-Dottan, R., & Karu, T. (2006). From emotional abuse in childhood to psychopathology in adulthood: a path mediated by immature defense mechanisms and self-esteem. *The Journal of Nervous and Mental Disease*, **194**, 616–621. doi:10.1097/01.nmd.0000230654.49933.23

Kernis, M. H. (2005). Measuring self-esteem in context: the importance of stability of self-esteem in psychological functioning. *Journal of Personality*, **73**, 1569–1605. doi:10.1111/j.1467-6494.2005.00359.x

Kong, J., & Moorman, S. M. (2015). Caring for my abuser: childhood maltreatment and caregiver depression. *The Gerontologist*, **55**, 656–666. doi:10.1093/geront/gnt136

Leeuwis, F. H., Koot, H. M., Creemers, D. H., & van Lier, P. A. (2015). Implicit and explicit self-esteem discrepancies, victimization and the development of late childhood internalizing problems. *Journal of Abnormal Child Psychology*, **43**, 909–919. doi:10.1007/s10802-014-9959-5

Mausbach, B. T., Roepke, S. K., Chattillion, E. A., Harmell, A. L., Moore, R., Romero-Moreno, R.,…Grant, I. (2012). Multiple mediators of the relations between caregiving stress and depressive symptoms. *Aging & Mental Health*, **16**, 27–38. doi:10.1080/13607863.2011.615738

Merz, E., Consedine, N., Schulze, H., & Schuengel, C. (2009). Wellbeing of adult children and ageing parents: associations with intergenerational support and relationship quality. *Ageing and Society*, **29**, 783–802. doi:10.1017/S0144686X09008514

Milkulincer, M., & Shaver, P. R. (2007). *Attachment in Adulthood: Structure, Dynamics, and Change*. New York, NY: The Guilford Press.

Mroczek, D. K., & Kolarz, C. M. (1998). The effect of age on positive and negative affect: A developmental perspective on happiness. *Journal of Personality and Social Psychology*, **75**, 1333–1349.

Paradis, A., & Boucher, S. (2010). Child maltreatment history and interpersonal problems in adult couple relationships. *Journal of Aggression, Maltreatment and Trauma*, **19**, 138–158. doi:10.1080/10926770903539433

Pavlova, B., Uher, R., Dennington, L., Wright, K., & Donaldson, C. (2011). Reactivity of affect and self-esteem during remission in bipolar affective disorder: an experimental investigation. *Journal of Affective Disorders*, **134**, 102–111. doi:10.1016/j.jad.2011.04.023

Pearlin, L. I. (2010). The life course and the stress process: some conceptual comparisons. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, **65B**, 207–215. doi:10.1093/geronb/gbp106

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019

Pearlin, L. I. (1989). The sociological study of stress. *Journal of Health and Social Behavior*, **30**, 241–256.

Pearlin, L. I., Mullan, J. T., Semple, S. J., & Skaff, M. M. (1990). Caregiving and the stress process: an overview of concepts and their measures. *The Gerontologist*, **30**, 583–594.

Pinquart, M., & Sörensen, S. (2003). Associations of stressors and uplifts of caregiving with caregiver burden and depressive mood: a meta-analysis. *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, **58**, P112–P128. doi:10.1093/geronb/58.2.P112

Pioli, M. F. (2010). Global and caregiving mastery as moderators in the caregiving stress process. *Aging & Mental Health*, **14**, 603–612. doi:10.1080/13607860903586193

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, **40**, 879–891. doi:10.3758/BRM.40.3.879

Prenda, K. M., & Lachman, M. E. (2001). Planning for the future: a life management strategy for increasing control and life satisfaction in adulthood. *Psychology and Aging*, **16**, 206–216. doi:10.1037//0882-7974.16.2.206

Radler, B. T., & Ryff, C. D. (2010). Who participates? Accounting for longitudinal retention in the MIDUS national study of health and well-being. *Journal of Aging and Health*, **22**, 307–331. doi:10.1177/0898264309358617

Riggs, S. (2010). Childhood emotional abuse and the attachment system across the life cycle: What theory and research tell us. *Journal of Aggression, Maltreatment & Trauma*, **19**, 5–51. doi:10.1037/a0021319

Riggs, S. A., Cusimano, A. M., & Benson, K. M. (2011). Childhood emotional abuse and attachment processes in the dyadic adjustment of dating couples. *Journal of Counseling Psychology*, **58**, 126–138. doi:10.1037/a0021319

Rosenberg, M. (1965). *Society and the adolescent self-image*. Princeton, NJ: Princeton University Press.

Royston, P. (2004). Multiple imputation of missing values. *Stata Journal*, **4**, 227–241.

Ryff, C., Almeida, D. M., Ayanian, J. S., Carr, D. S., Cleary, P. D., Coe, C., … & Williams, D. (2012). *National Survey of Midlife Development in the United States (MIDUS II), 2004–2006*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

Ryff, C., Almeida, D. M., Ayanian, J. S., Carr, D. S., Cleary, P. D., Coe, C., … & Williams, D. (2012). *National Survey of Midlife Development in the United States (MIDUS II), 2004–2006: Documentation of post-stratification weights created at MIDUS 2*. Ann Arbor, MI: Inter-university Consortium for Political and Social Research.

Ryff, C. D., & Keyes, C. L. M. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, **69**, 719–727. doi:10.1037/0022-3514.69.4.719

Sachs-Ericsson, N., Gayman, M. D., Kendall-Tackett, K., Lloyd, D. A., Medley, A., Collins, N.,…Sawyer, K. (2010). The long-term impact of childhood abuse on internalizing disorders among older adults: the moderating role of self-esteem. *Aging & Mental Health*, **14**, 489–501. doi:10.1080/13607860903191382

Silverstein, M., & Giarrusso, R. (2010). Aging and Family Life: A Decade Review. *Journal of Marriage and the Family*, **72**, 1039–1058. doi:10.1111/j.1741-3737.2010.00749.x

Sowislo, J. F., Orth, U., & Meier, L. L. (2014). What constitutes vulnerable self-esteem? Comparing the prospective effects of low, unstable, and contingent self-esteem on depressive symptoms. *Journal of Abnormal Psychology*, **123**, 737–753. doi:10.1037/a0037770

Span, P. (2014). A risk in caring for abusive parents. The New York Times. Retrieved from http://newoldage.blogs.nytimes.com/2014/01/20/a-risk-in-caring-for-abusive-parents/?_php=true&_type=blogs&_r=0

Sperry, D. M., & Widom, C. S. (2013). Child abuse and neglect, social support, and psychopathology in adulthood: a prospective investigation. *Child Abuse & Neglect*, **37**, 415–425. doi:10.1016/j.chiabu.2013.02.006

Steele, B. F. (1986). Notes on the lasting effects of early child abuse throughout the life cycle. *Child Abuse & Neglect*, **10**, 283–291.

Stein, J. A., Leslie, M. B., & Nyamathi, A. (2002). Relative contributions of parent substance use and childhood maltreatment to chronic homelessness, depression, and substance abuse problems among homeless women: mediating roles of self-esteem and abuse in adulthood. *Child Abuse & Neglect*, **26**, 1011–1027. doi:10.1016/S0145-2134 (02)00382-4.

Straus, M. A. (2007). Conflict tactics scales. In Jackson, N. A. (Ed.). *Encyclopedia of domestic violence* (pp. 190–197). Routledge: Taylor and Francis Group. Retrieved from: http://pubpages.unh.edu/~mas2/CTS44G.pdf

Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980). *Behind closed doors: Violence in the American family*. New York, NY: Anchor Books.

Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next? *Journal of Health and Social Behavior*, **35**, 53–79. doi:10.2307/2626957

Widom, C., Kahn, E., Kaplow, J., Kozakowski, S., & Wilson, H. (2007). Child abuse and neglect: Potential derailment from normal developmental pathways. *NYS Psychologist*, **19**, 2–6.

Wuest, J., Hodgins, M. J., Malcolm, J., Merritt-Gray, M., & Seaman, P. (2007). The effects of past relationship and obligation on health and health promotion in women caregivers of adult family members. *Advances in Nursing Science*, **30**, 206–220. doi:10.1097/01.ANS.0000286620.39021.88

Downloaded from https://academic.oup.com/gerontologist/article-abstract/58/3/456/3855001 by University of Wisconsin-Madison Libraries user on 13 February 2019