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Abstract

This article is an examination of the empirical literature published in peer-reviewed journals, which investigated samples of adults aged 50 and older, who had experienced trauma, in childhood with follow-up of the impact on later life mental and physical health. Articles were identified through searches of EBSCO host databases, such as PubMed, SociolIndex, and PsycholIt. Search terms such as *childhood trauma* and *cumulative trauma* were paired with the term *older adults* in varying combinations. The collective findings of 23 studies published between 1996 and 2001 suggested that trauma first documented as occurring in childhood is associated with later life mental and physical health. Methodological limitations and future directions as well as recommendations for practice, policy, and research with older adults and trauma are delineated.

Keywords

lifetime trauma, childhood trauma, earlier life trauma, stressful life events, mental health, anxiety, depression, physical health, older adults

Introduction

One or more traumatic experiences in childhood (below the age of 18) is a dramatic event with varying short- and long-term consequences (Gagnon & Hersen, 2000; Kraaij, Kremers, & Arensman, 1997). Rates of trauma from the National Comorbidity Study revealed that more than half of Americans between 18 and 55 reported experiencing at least one earlier traumatic life event (Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995). Moreover, the psychological effects of such events are notable as global rates of posttraumatic stress disorder (PTSD) have been reported to be as high as 20% based on either *DSM-IV-TR* or ICD-10 diagnostic codes (APA, 2000; Elhai, Grubaugh, Kashdan, & Frueh, 2008; Shmotkin & Barilan, 2002).

Traumatic events are broad in scope, range in intensity, and at times, there is a dosage effect. People's experiences of trauma range from a singular childhood event to the accumulation of a series of traumatic experiences that occur across the life course. Examples include ongoing physical and sexual assault or being a victim and/or witness to community violence or terrorist attacks. A person's subjective response to traumatic events may be psychological, and/or physiological and survivors may be affected in a variety of ways across the different stages of the life span: childhood, adulthood, and older adulthood (Elder, 2003; Pearlin, Schieman, Fazio, & Meersman, 2005).

Trauma and Mental and Physical Health

Research indicates that childhood trauma may have a persistent or intermittent mental or physical effect. The effects may include continued revictimization, psychiatric disorders, cognitive impairment, maladaptive stress responses, physical disabilities, and even early death (Acierno et al., 2010; Gagnon & Hersen, 2000; Stessman et al., 2008). Other stressful life events, such as losing a loved one, school failure, or family problems may occur concurrently or sequentially, at various points across the life course, and when this stress happens it often exacerbates subjective symptoms (Maschi, 2006a).

The type and timing of symptoms may vary. For example, subjective traumatic experiences that first occur in childhood may be accompanied by feelings of intense fear, helplessness, or horror (APA, 2000; Hiskey, Luckie, Davies, & Brewin, 2008). Any of these subjective feelings may occur

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immediately following the childhood traumatic event or remain dormant and then surface and even resurface in later life (Hiskey et al., 2008). Evidence also suggests that when a traumatic experience is marked by intensity, duration, and chronicity, such as a prolonged exposure to war and imprisonment, the likelihood of posttraumatic stress symptoms is prolonged and may extend into advanced years (Neal, Hill, Hughes, Middleton, & Busuttill, 1995). A cogent example consists of a sample of World War II combat veterans and ex-war prisoners ($N = 30$). Neal and colleagues (1995) found that one third had PTSD diagnosis, and almost all (90%) reported PTS symptoms 50 or more years later.

Research on the temporal effects of childhood trauma, especially on later life functioning, has been minimally explored. Although the data are scant, findings indicate that childhood trauma exposure may result in minor psychological distress or lead to more severe mental health consequences, such as PTSD, depression, anxiety, and cognitive impairment (e.g., Neal et al., 1995; Shmotkin & Litwin, 2009). The temporal aspects of survivors' subjective responses may be temporary, persistent, or delayed only to resurface later in life, especially if a new traumatic experience occurs (Acierno et al., 2007, 2010; Brady, Acierno, Resnick, Kilpatrick, & Saunders, 2004). Early life trauma has been associated with later life physical health, including the presence of chronic health problems, such as heart disease, diabetes, and mortality. Other health-related factors include higher usage of psychotropic medications, reduced capacity in activities of daily living, and poorer ratings on self-reported health activities of daily living (Draper et al., 2008; Petkus, Gum, King-Kallimanis, & Wetherell, 2009; Stessman et al., 2008).

The broad scope of early traumatic experience is also evident in risk behavior studies. Research within the past decade shows that early life trauma subsequently affects health risk behaviors (Sachs-Ericsson et al., 2010; Stessman et al., 2008; Vielhauer & Findler, 2002). These risk behaviors include substance use, sexual activity, and heightened stress response, which may further compromise later life physical and mental well-being (Acierno et al., 2007; Bright & Bowland, 2008; Haugebrook, Zgoba, Maschi, Morgen, & Brown, 2010). Similarly, older adults with earlier life trauma, have been shown to have a higher risk of revictimization or elder abuse, especially if their social support network is limited (Acierno et al., 2007).

Purpose of the Study

Most of what is known about the short- and long-term mental health and physical consequences of trauma is based on younger populations specifically samples of children, adolescents, and adults below the age of 50 (e.g., Browne & Finkelhor, 1986; Maschi, 2006a, 2006b; Maschi, Morgen, Zgoba, Courtney, & Ristow, 2011; Widom, 1989). There is a small but growing body of research that has documented the

later life influence of childhood trauma among adults aged 50 and older (e.g., Acierno et al., 2010; Krause, 2004). However, much remains unclear about the ways in which traumatic events that occurred early in life influence later life adaptive functioning (Van Zelst, Beurs, Beekman, Deeg, & Van Dick, 2003). This knowledge gap is particularly troublesome given that mental and physical health needs become increasingly more complex and costly as individuals age. Unidentified and untreated risk factors, such as trauma and stressful life events, that may compromise individuals' later life health and well-being need to be addressed, especially given the demographic data which show that older adults are expected to reach unprecedented proportions of the U.S. population. In addition, there is a dearth of information about factors and processes that comprise the intervening mechanisms that foster resilience across the life course. Identifying these factors and processes can help prevent or ameliorate later life adverse mental and physical health consequences, especially among often overlooked vulnerable populations, such as older adults.

To date, there is no known comprehensive review of the literature that has examined later life mental and physical health associated with traumatic experiences that first occurred in childhood. The aim of this literature review was to address that knowledge gap by examining the published empirical literature regarding the effects of childhood trauma on mental and physical health. The information gained from this review can be used to identify factors that foster risk and resilience across the life course. Such information is critical for theory building and for delineating trauma assessment processes and intervention strategies for older adults, especially in the movement toward increasing integration of primary care, mental health, and palliative care (Miller, Kessler, Peek, & Kallenberg, 2011).

Method

Sample Selection

A comprehensive review of the empirical literature was conducted to identify peer-reviewed journal articles that examined trauma which first occurred in childhood and the subsequent concomitants in health and mental health in samples aged 50 and older. Journal articles were located through a search of electronic databases. The search engine EBSCO Host was used because it housed 59 research databases of particular relevance to the trauma literature, that is, *Academic Search Complete*, *PsychARTICLES*, *socINDEX*, and *MEDLINE*. Keyword search terms that were used in various combinations, included *childhood trauma*, *cumulative trauma*, and *older adults* and were limited to studies published in the past 25 years (1996-2011).

A journal article was selected for inclusion in this study if (a) it was a peer-reviewed empirical study (i.e., used quantitative, qualitative, or mixed methods) that included a sample

of adults aged 50 and older, (b) it examined trauma that first occurred in childhood and the resultant consequences on later life mental and or physical health, and (c) it was published in a peer-reviewed social science or science journal in the past 25 years (1996-2011). Based on this criteria, a total of 23 articles were identified. Articles that were excluded from the sample included studies with samples younger than the age of 50, that did not examine trauma where at least one event occurred during childhood, or that were not empirical ones. A data-extraction tool was created by the research team to organize information related to the methods and major findings of the research studies.

Methods Used Across Studies

Design Types and Sampling Strategies

As shown in Table 1, the studies included in the review were conducted over the past two decades between 1986 and 2008. Fifteen studies reported the year they were conducted, 5 were conducted between 1996 and 2000, and 10 studies were conducted within the past decade between 2002 and 2008. Most of the studies used quantitative research methods ($n = 20$) with cross-sectional designs ($n = 18$). Slightly more than half ($n = 14$) of the studies also used probability sampling strategies that included some type of randomized procedures. This included the use of nationally or regional representative samples drawn from the United States ($n = 15$) or Israel ($n = 4$). However, in many cases, response rates were not provided or fell below an optimal 70%. In addition, the use of group experimental designs was in the minority ($n = 5$). The definitions for trauma also varied across studies and data-collection methods were mostly in-person semistructured or structured interviews. As shown in Table 2, the sample sizes varied widely from small ($n = 12$) to large ($n = 21,877$). The age of participants varied across studies ranging from age 50 to above 90 years old. As for gender and race, women and Whites comprised the majority of the study samples.

Major Findings Across Studies

Correlates and Consequences

Table 3 provides a brief overview of the major findings of trauma that first occurred in childhood and later life mental and physical health concomitants. These collective findings suggest that a history of childhood trauma is significantly associated with later life mental health (including substance abuse), physical health, and revictimization (Acierno et al., 2010; Shmotkin & Barilan, 2002; Shmotkin & Litwin, 2009). These traumatic experiences ranged from a single event to the accumulation of multiple traumatic and related stressful life events. An earlier life singular traumatic event of significant magnitude linked to later life adverse mental

and physical health among older adults included being a childhood victim of physical or sexual assault or a child holocaust or war survivor (Lamet, Szuchman, Perkel, & Walsh, 2009; Shmotkin & Barilan, 2002).

Childhood trauma types and later life outcomes. As shown in Table 4, the types of childhood trauma experienced and the relationship to later life mental and physical health outcomes varied across studies. Being a direct victim of violence as compared with witnessing violence was found to have more adverse mental health effects (Draper et al., 2008). Shmotkin and Barilan (2002) found that direct trauma exposure had a positive association with symptoms of depression among a sample of older adults. In contrast, indirect trauma exposure had either no association or an inverse association with depression.

PTSD. Older adult survivors of childhood trauma, when compared with older adults who did not experience trauma, were more likely to experience posttraumatic stress symptoms (Brady et al., 2004). This is especially shown for symptoms of avoidance and reexperiencing symptoms (Acierno et al., 2007). Reexperiencing trauma-related symptoms in later life varied from a spontaneous experience with no associated trigger to being triggered by other later life stressors, such as widowhood or witnessing or learning about a terrorist attack (Hiskey et al., 2008). More specifically, Hiskey and colleagues (2008) found that older adults, who were childhood trauma survivors, experienced later life reactivation of traumatic memories, which had intense and vivid aspects with the same subjective potency experienced during the actual traumatic event. Many participants' resurfaced memories were triggered by sensory reminders or anniversaries of the traumatic experiences. Brady et al. (2004) similarly found that older adult widows with childhood trauma histories compared with older adult nonwidows with childhood trauma histories showed significantly higher levels of PTSD symptoms. Likewise, Lamet et al. (2009) found that holocaust survivors reported higher posttraumatic symptoms than nonholocaust survivors in the post-9/11 environment.

Singular and cumulative effects. Findings also suggest that trauma histories can consist of one or more traumatic events that first occurred in childhood. Participants, who experienced multiple traumatic events, such as being a victim of physical or sexual abuse, may have experienced these events concurrently or sequentially along with other stressful life events, such as living in poverty, loss of a loved one, and/or school or employment problems.

The developmental period during which the trauma occurred coupled with the type of traumatic experience may have differential effects. For example, Draper and colleagues (2008) found that older adults with childhood physical and sexual abuse histories were at the highest risk of later poor physical health and mental health compared with those who did not have these experiences. As for life-course cumulative effects, Yehuda and colleagues (1995) found that childhood trauma combined with current experiences of age-related

4 **Table 1.** Overview of Research Designs Across Studies That Examined Earlier Life Trauma and Late Life Mental and Physical Health Among Older Adults (N = 23)

Author(s) and year (in alphabetical order)	Purpose of study	Study setting	Design and sampling strategies	Data-collection procedures
Acierno et al. (2007)	Examine older adults with childhood trauma histories, mental health, and substance abuse	Continental United States; National Women's Study (1995-1996)	Quantitative; cross-sectional survey descriptive design; national representative subsample	Stratified random-digit-dialing; standardized computer-assisted telephone interviews; self-report
Acierno et al. (2010)	Examine correlates of elder abuse, such as prior childhood trauma	Continental United States; National Elder Mistreatment Study (2008)	Quantitative; cross-sectional survey descriptive design; nationally representative older sample stratified by geographic area	Stratified random-digit-dialing; standardized computer-assisted telephone interviews; self-report
Armour (2010)	Examine meaning making among holocaust survivors who immigrated to the United States	U.S. locations (Austin, Dallas, Houston, Los Angeles, Minneapolis, New Jersey, San Antonio, Washington, DC)	Mixed methods; cross-sectional design; nonprobability snowball sampling of holocaust survivors	Mental health professionals conducted 2-2.5-hr interviews. Answers were recorded in an interview protocol book and audio-taped and transcribed verbatim
Brady, Acierno, Resnick, Kilpatrick, and Saunders (2004)	Investigate if older women's widow status was associated with prior trauma, PTSD, depression	Continental United States; National Women's Study (1995-1996)	Quantitative; cross-sectional survey descriptive design; nationally representative subsample	Stratified random-digit-dialing; standardized computer-assisted telephone interviews; self-report
Bright and Bowland (2008)	Evaluate Posttraumatic Diagnostic Scale for older women	Saint Louis Missouri community setting	Mixed methods; cross-sectional design; purposive sample drawn from larger intervention study	In-person screening interview of 60-90 min (master's degree) clinicians; self-report
Draper et al. (2008)	Examine association between child abuse and mental and physical health with older people	Australia; Depression and Early Prevention of Suicide in General Practice Survey	Quantitative; cross-sectional randomized control trial design	Baseline-mailed questionnaire sent to general practitioners' patients; self-report
Dulin and Passmore (2010)	Examine mediating influence of trauma avoidance on lifetime trauma, anxiety, and depression	New Zealand community setting	Quantitative/cross-sectional descriptive design; nonprobability sample (recruitment via advertisements)	Telephone interview questionnaires completed; self-report
Haugebrook, Zgoba, Maschi, Morgen, and Brown (2010)	Describe trauma, mental and physical health, and substance use in older prisoners	New Jersey Department of Corrections (2009)	Quantitative; cross-sectional descriptive study; randomized sample of older prisoners	Case record reviews
Hiskey, Luckie, Davies, and Brewin (2008)	Examine reactivated trauma memories in older adults	London, England, Psychology Department (2005-2006)	Quantitative; cross-sectional descriptive study	In-person semistructured interviews; self-report
Kraaij, Kremers, and Arensman (1997)	Examine lifetime trauma and depression in older adults	Holland, nursing home, or service apartments	Quantitative; cross-sectional descriptive study; 43% response rate	In-person interviews with trained students in psychology; self-report
Krause (2004)	Examine lifetime trauma, emotional support, life satisfaction, and age group	Continental United States, Wave 4 (2002-2003); Medicare Beneficiary Eligibility List	Quantitative; cross-sectional survey descriptive design; probability sampling; drawn from Medicare list (noninstitutional; English-speaking, aged 65+, retired); 54% response rate	In-person structured clinical interview; data collected by Harris Interactive (New York, NY); self-report
Krause, Shaw, and Caimy (2004)	Examine the relationship between lifetime trauma and physical health status	Continental United States, Wave 4 (2002-2003); Medicare Beneficiary Eligibility List	Quantitative; cross-sectional survey descriptive design; probability sampling; drawn from Medicare list (noninstitutional; English-speaking, aged 65+, retired); 54% response rate	In-person structured clinical interview; data collected by Harris Interactive (New York, NY); self-report

(continued)

Table 1. (continued)

Author(s) and year (in alphabetical order)	Purpose of study	Study setting	Design and sampling strategies	Data-collection procedures
Krause, Shaw, and Cairney (2004)	Evaluate the stress-buffering function of meaning of life	Continental United States, Waves 4-5 (2002-2003, 2005); Medicare Beneficiary Eligibility List	Quantitative; longitudinal survey descriptive design; Medicare list (noninstitutional; English-speaking, aged 65+, retired); 54% response rate	In-person structured clinical interview; data collected by Harris Interactive (New York, NY); self-report
Lamert, Szychman, Perkel, and Walsh (2009)	Examine retraumatization and the risk factors, resilience, and psychological distress (post-9/11)	Florida, private homes and senior centers (post-9/11)	Quantitative; cross-sectional; quasi-experimental comparison group design of holocaust and nonholocaust survivors	In-person interviews administered in private homes or senior center; self-report
Nelson-Becker (2004)	Explore older adults trauma and stress coping	Chicago, Illinois-4 subsidized high-rise housing facilities	Qualitative; cross-sectional nonprobability purposive sample	In-person audio-taped interviews; self-report
Petkus, Gum, King-Kallimannis, and Wetherell (2009)	Examine trauma, physical health, anxiety, depression in homebound older adults	Central Florida state and federally funded aging services	Quantitative; cross-sectional; secondary data analysis; nonprobability sample recruited by in-home aging service case managers	In-person structured clinical interview; self-report; case managers' standard assessment of health and functioning
Sachs-Ericsson et al. (2010)	Explore impact of childhood trauma on internalizing behavior and self-esteem	Florida-Miami Dade County-The Physical Health & Disability Study (1986 & 1989)	Quantitative; longitudinal; secondary data analysis; probability 10,000 randomly selected households; equally proportioned by gender, race, and disability status	In-home in-person interviews (retrospect self-report) by trained bilingual interviewers; some use of alternative sites or by telephone
Schnurr; Spiro, Aldwin, and Stukei (2002)	Examine the prior trauma and PTSD in older adults	Boston, Massachusetts; Boston Veteran Affairs (1990)	Quantitative; longitudinal design; stratified random sampling of healthy veterans of World War II; oversampled for combat or civilian trauma	Mailed questionnaire followed by audio-taped in-person or telephone interviews by clinicians; self-report
Shmotkin and Barilan (2002)	Explore holocaust experience, psychological distress, and health	Tel Aviv, Israel; large public hospital (1996-2000)	Mixed methods; longitudinal-intake and follow-up; purposive sample of holocaust survivor in treatment with a physician	In-person interviews with participants; physician intake and follow-up information
Shmotkin and Litwin (2009)	Examine association between cumulative adversity and current depressive symptoms	Israel; Survey of Health, Aging, and Retirement in Europe (SHARE; 2005-2006)	Quantitative; cross-sectional secondary data analysis; representative sample stratified by geographic and demographic criteria	In-person interviews (Hebrew, Russian, Arabic); computer-assisted personal interviews (90 min); supplementary paper drop-off questionnaire; self-report
Stessman et al. (2008)	Examine whether holocaust exposure affects physical health and mortality	West Jerusalem, Israel; Jerusalem Longitudinal Cohort Study; Electoral Registry (1990 & 1997)	Quantitative; longitudinal cohort study; randomly selected comparison group design; West Jerusalem residents born 1920-1921	Two 90-min in-person structured interviews (self-report); review of hospital admission records and death certificates issued in Israel
Van der Hal-Van Raalte, Bakermans-Kranenburg, and Van Ijzendoorn (2008)	Examine stress reactivity in holocaust survivors	Israel; Amcha Center for Holocaust Survivors and participants' home	Quantitative; longitudinal (time series) nonprobability sampling; comparison group design; sample recruited from Israel Ministry of Interior Affairs; holocaust survivors and comparisons	Research assistants-administered multiple cortisol assessments and in-person self-report questionnaires
Yehuda, Kahana, Schmeidler, Southwick, Wilson, and Giller (1995)	Examine late-life implications of early traumatic stress, PTSD, among survivors and comparisons	Cleveland, Ohio; Cleaveland Historical Society	Quantitative; cross-sectional random selection of holocaust survivors from Cleveland Historical Society roster	In-person structured clinical interviews

Table 2. Sample Characteristics Used Across Studies: Sample Size, Age, Gender, and Race/Ethnicity (N = 23)

Author/s and year (in alphabetical order)	Sample size	Age	Gender			Race/ethnicity					
			Women	Men	White	AA	Latino	Asian, NA, PI*	Other		
Acierno et al. (2007)	N = 549	55+	100%	0%	88%	7%	3%	2%	4%		
Acierno et al. (2010)	N = 5,777	60+	60%	40%	88%	7%	4%	2%	0.2%		
Armour (2010)	N = 133	80+	68%	32%	100%	0%	0%	0%	0%		
Brady, Acierno, Resnick, Kilpatrick, and Saunders (2004)	N = 473	55-89	100%	0%	89%	7%	0%	5%	0%		
Bright and Bowland (2008)	N = 33	54-83	100%	0%	89%	10%	0%	0.5%	0.5%		
Draper et al. (2008)	N = 21,819	M = 72.0 (SD = 7.7)	59%	41%	N/R	N/R	N/R	N/R	N/R		
Dulin and Passmore (2010)	N = 1,489	65-94; M = 74.2	67%	34%	86%	0%	0%	3%	11%		
Haugebrook, Zgoba, Maschi, Morgen, and Brown (2010)	N = 114	55+	8%	92%	36%	48%	16%	0%	0%		
Hiskey, Luckie, Davies, and Brewin (2008)	N = 12	M = 74.6 (SD = 5.9)	33%	67%	100%	0%	0%	0%	0%		
Kraaji, Kremers, and Arensman (1997)	N = 171	68-97; M = 82.3 (SD = 6.7)	75%	25%	N/R	N/R	N/R	N/R	N/R		
Krause (2004)	N = 1,397	65-85+; M = 74.7 (SD = 7.4)	58%	42%	89%	0%	0%	0%	11%		
Krause, Shaw, and Cairney (2004)	N = 1,508	65-85+; M = 74.7 (SD = 7.4)	58%	42%	89%	0%	0%	0%	11%		
Krause et al. (2010)	N = 1,478	65-85+; M = 74.7 (SD = 7.4)	59%	41%	N/R	N/R	N/R	N/R	N/R		
Lamet, Szuchman, Perkel, and Walsh (2009)	N = 128	80-93	100%	0%	100%	0%	0%	0%	0%		
Nelson-Becker (2004)	(n = 60; holocaust)										
Nelson-Becker (2004)	N = 79	58-92; M = 77.4 (SD = 8.0)	84%	16%	47%	53%	0%	0%	0%		
Petkus, Gum, King-Kallimanis, and Wetherell (2009)	N = 136	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R		
Sachs-Ericsson et al. (2010)	N = 1,460 (t1); N = 1,090 (t2)	50+; M = 67.0 (SD = 10.3)	60%	40%	22%	34%	44%	0%	0%		
Schnurr, Spiro, Aldwin, and Stukei (2002)	N = 436	59-92	0%	100%	98%	0%	0%	0%	2%		
Shmotkin and Barilan (2002)	N = 38	55-86; M = 72.0 (SD = 9.2)	55%	45%	N/R	N/R	N/R	N/R	N/R		
Shmotkin and Litwin (2009)	N = 1,710	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R		
Stessman et al. (2008)	N = 458	70 (at baseline); 77 (at follow-up)	50%	50%	100%	0%	0%	0%	0%		
Van der Hal-Van Raalte, Bakermans-Kranenburg, and Van Ijzendoorn (2008)	N = 133	64-73; M = 65.0	61%	39%	N/R	N/R	N/R	N/R	N/R		
Yehuda, Kahana, Schmeidler, Southwick, Wilson, and Giller (1995)	N = 121 (n = 72; holocaust)	M = 66.4 (SD = 5.9-holocaust); M = 70.4 (SD = 6.8-comparison)	N/R	N/R	N/R	N/R	N/R	N/R	N/R		

Note: AA = African American; Asian, NA, PI = Asian American, Native American, or Pacific Islander; N/R = not reported.

Table 3. Overview of Major Findings That Examined Earlier Life Trauma and Late Life Mental and Physical Health Among Older Adults

Lifetime trauma (childhood or adulthood)	Resilience or protective factors	Health and well-being
Victim or witness to violence	Psychological/emotional/cognitive	Mental health
Physical assault	Self-esteem	PTSD
Sexual assault	Life satisfaction	Depression
Emotional abuse	Reactivated trauma memories	Anxiety
Mass trauma	Forgiveness	Psychiatric symptoms
Combat exposure	Meaning in life (meaning-making)	Cognitive functioning
Related stressful life events (e.g., death of a loved one, divorce, accidents, natural disasters)	Sense of safety	Physical health
Sociodemographic influences	Cognitive resilience	Physical health conditions
Age	Spiritual	Revictimization
Gender	Spirituality	Mortality
Race/ethnicity	Social	Cortisol levels
Marital status	Social support	Functional status
Education	Social resilience	ADLs
Economic status	Physical	IADLs
Religion	Activity strengths and limitations	Other physical activities
Social service use	Behavioral	Subjective health
	Traumatic stimuli avoidance	Self-rated health
	Fighting hatred and oppression	

Note: PTSD = posttraumatic stress disorder; ADL = activity of daily living; IADL = instrumental activity of daily living.

stress was positively associated to the severity of posttraumatic stress symptoms. That is, survivors with PTSD reported higher levels of cumulative trauma and stressful life events compared with comparison group of survivors without PTSD.

Comorbid mental and physical effects. Childhood trauma survivors in later life also may experience comorbid mental and physical health effects. Petkus et al. (2009) found that older adults with earlier life trauma histories that included childhood trauma had clinically significant somatic and anxiety symptoms, were diagnosed with anxiety, had one more chronic health condition, took two or more psychotropic medications, and had lower self-reported health than a comparison group of older adults without trauma histories.

Age group differences or cohort effects. Some studies that examined earlier trauma found age group differences, especially with physical health. For example, Krause, Shaw, and Cairney (2004) found the cumulative effects of life-course traumatic events, including events from childhood, exerted an adverse effect on each of the three health measures among young-old (ages 65-74), old-old (ages 75-84), and oldest-old (ages 85 and older) adults.

Age group differences also were found in that the youngest-old appeared to be at greatest risk of later life victimization and mental health problems. Acierno et al. (2010) found that the "younger" older adults (aged 55-60), who were childhood trauma survivors, were more at risk of elder abuse compared with "older" old adults, who were childhood trauma survivors. As for mental health, Van der Hal-Van Raalte, Bakermans-Kranenburg, and Van Ijzendoorn (2008) found that younger-old Holocaust survivors (aged 56-60) showed PTSD impairment with early onset of impaired stress regulation compared with the older-old Holocaust survivors (aged 61+).

Resiliency and Protective Factors

The collective study results also found some evidence for factors that fostered resiliency across the life course among older adults. These factors included internal and external resources that included self-esteem, a sense of safety, spirituality, and forgiveness, positive attitudes (optimism), positive actions (agency), and social support.

Internal resources. Some studies found that internal resources acted as protective factors that preserved later life cognitive psychological health. For example, Sachs-Ericsson and colleagues (2010) found that self-esteem moderated the relationship between child abuse history and internalizing disorders among older adults. Similarly, Lamet et al. (2009) conducted a study on child Holocaust survivors and compared them with nonholocaust survivors. Results indicated that internal resources, such as self-esteem, cognitive resilience, positive attitude or optimism, spirituality, a sense of safety, and forgiveness acted as protective factors.

Spirituality, "meaning-making," and an intact sense of safety also were found to foster later life resilience. Nelson-Becker (2004) found that older adults commonly reported that spirituality helped them to cope with past traumatic experiences. Similarly, in a recent dissertation study of suffering among frail elderly women (Morrissey, 2011a) and a follow-up study (Morrissey, 2011b), Morrissey reported that the maternal was an issue of significance for seriously ill older adults for whom a struggle toward well-being at the end of life had meanings of empathic maternal care, nurturance, comfort, and security in the context of life-course experiences of traumatic loss, pain, and suffering. Krause and colleagues (2004) found that older adults with histories of cumulative trauma and stressful life events that first occurred in childhood reported a stronger sense of meaning

Table 4. Major Findings of the Literature on Earlier Life Trauma and Late Life Physical and Mental Health Among Older Adults (N = 23)

Author(s) (year)	Independent variable/s	Mediator/moderator/ control variable(s)	Outcome variables	Central measures used	Data analysis	Major findings
Acierno et al. (2007)	Physical and sexual assault histories (childhood +)	None	Alcohol abuse, depressive, and PTSD symptoms	Structured interview about trauma, perceived health status, psychopathology, demographics	Prevalence rates, odds ratios	Older women with physical or sexual assault histories were more likely to present with alcohol abuse, depression, and PTSD avoidance and reexperiencing symptoms than comparison group
Acierno et al. (2010)	Lifetime trauma (emotional physical, sexual) (childhood +)	Social support, age, gender, race, income, ADLs, social service use	Elder abuse: emotional, physical, sexual, financial, neglect	Structured interview schedule about lifetime trauma, social support, sociodemographics	Logistic regression, MANOVA	Younger older were more at risk of elder abuse compared with older old. The most consistent correlates of mistreatment across abuse types were low social support and previous trauma
Armour (2010)	Child holocaust survivor status	Cognitive and social resilience	Forgiveness	Semistructured interview questions; Standardized Measures: Enright Forgiveness Inventory; Coping with Aftermath of Holocaust; Life History; Sense Making; Perceptions of Other Survivors Questionnaires	Descriptive and thematic analysis	Content analysis themes related to attitudes and action related to holocaust survival (during the holocaust, U.S. immigration, and later life). During the holocaust, survivors refused death as an option, felt lucky, outwitted their captors, and had hope and a future orientation. Post immigration, survivors focused on education, success, family, closure, proactive beliefs (gratitude and acceptance), and resolving hatred. As older adults, their focus was on health maintenance, family obligations, and fighting hatred and oppression
Brady, Acierno, Resnick, Kilpatrick, and Saunders (2004)	Spousal death, trauma- childhood +	None	PTSD, depressive symptoms	Structured Clinical Interview for DSM-III-R	Chi-square analyses	Older adult widowed women experienced more PTSD but not depressive symptoms than their nonwidowed counterparts
Bright and Bowland (2008)	Sexual assault, domestic violence (childhood +)	None	PTSD, mental health, substance abuse	Posttraumatic Diagnostic Scale (PDS)	Descriptive statistics	The women viewed trauma as bundles of interrelated experiences with adverse consequences, such as substance abuse, sexual activity, and mental health issues. PDS scores were found to vary among a sample of 9 older women, questioning its validity with older women
Draper et al. (2008)	Physical and sexual abuse (childhood)	Age, sex, religion, birthplace, marital status, education, living situation, parental death, health behaviors, social support	Current physical health, mental health, anxiety and depressive symptoms	Medical Outcomes Study Short Form; Common Medical Morbidity Inventories; Patient Health Questionnaire; Hospital Anxiety and Depression Scale	Multivariate models of association	Older adult participants with child physical or sexual abuse histories had greater risk of poor health and mental health outcomes. Those with both physical and sexual abuse histories had the highest risk of poor health and mental health
Dulin and Passmore (2010)	Trauma (16 events, e.g., physical and sexual abuse, loss-childhood +)	Avoidance of potentially traumatic stimuli	Depressive and anxiety symptoms	Traumatic Events Questionnaire; Geriatric Depression Scale; Stanford Acute Stress Reaction Questionnaire; Civilian Version—PTSD Checklist	Mediation- hierarchical regression analyses	Traumatic events predict both depression and anxiety among New Zealand older adults. Adult traumatic events predicted late life anxiety and depression compared with childhood and adolescence

(continued)

Table 4. (continued)

Author(s) (year)	Independent variable/s	Mediator/moderator/control variable(s)	Outcome variables	Central measures used	Data analysis	Major findings
Haugebrook, Zgoba, Maschi, Morgen, and Brown (2010)	Trauma (e.g., physical and sexual abuse, losing loved one-childhood +)	Race/ethnicity	Health, mental health, substance use	Data extraction form—categories for trauma, physical health, mental health, and substance abuse	Chi-square; odds ratios	About 50% of the older prisoners had documented trauma (being a victim or witness to violence) in childhood. Physical health, mental health, and substance use problems were common. White compared with African American and Latino prisoners were found to have significantly higher rates of reported trauma
Hiskey, Luckie, Davies, and Brewin (2008)	Trauma (e.g., fire, illness, domestic violence, assault accident-childhood +)	Involuntary trauma memories	PTSD, depressive symptoms	Trauma Memory Inventory—Distant Events; Post-Traumatic Diagnostic and Geriatric Depression Scales	Descriptive statistics	Earlier life trauma memories contained intense and vivid aspects, reflective of original event. Triggers, such as sensory reminders or anniversaries, were noted. Depression and PTSD symptoms were present in some participants
Kraaij, Kremers, and Arensman (1997)	Traumatic and stressful life events (childhood +)	None	Depression	Life Events Questionnaire (96 questions); Geriatric Depression Scale	Correlation analysis	Most significant correlations with depression were found for traumatic events that occurred in late adolescence/adulthood. Some stressful life events were correlated with depression
Krause (2004)	22 lifetime trauma and stressful life events (childhood +)	Emotional social support, age, gender, marital status, education	Life satisfaction	Life Satisfaction—Index A Scale; Lifetime Traumatic Life Events Checklist; Social Support Scale	Multiple regression, moderation analyses	Prior exposure to trauma was associated with less life satisfaction among the young-old (65-74), old-old (75-84), and oldest-old (85+). Emotional social support buffered oldest-old cohort
Krause, Shaw, and Cairney (2004)	22 trauma and stressful life events (childhood +)	Age, sex, marital status, education, race	Physical health (problems, functioning, self-rated health)	Lifetime Traumatic Life Events Checklist; global self-rated health (self and others); satisfaction with health; health conditions; ADLs; IADLs	OLS multiple regression analyses	Traumatic events (including in childhood) exerted an adverse effect on three health outcomes measures among young-old (65-74), old-old (75-84), and oldest-old (85+) adults. Data also showed youngest-old appear to be at greatest risk.
Krause et al. (2010)	22 trauma and stressful life events (childhood +)	Meaning in life, age, sex, education, marital status	Depressive symptoms	Lifetime Traumatic Life Events Checklist; Center for Epidemiologic Studies Depression Scale; Meaning in Life Scale	Multiple regression analyses; cross-lagged panel model	Meaning in life was found to reduce the adverse consequences of traumatic and stressful life events on depressive symptoms (cross-sectional, not longitudinal)
Lamet, Szuchman, Perkel, and Walsh (2009)	Child holocaust survivor Status	Trait anxiety, sense of safety, cognitive and social resilience	PTSD	Trauma Symptom Checklist; Trait Anxiety Inventory; Resilience Scale; Sense of Safety Regarding Terrorism Scale	MANOVA, hierarchical regression analysis	Child holocaust survivors reported higher posttraumatic symptoms than nonholocaust survivors in post-9/11 environment. Anxiety, sense of safety and survivor status contributed significantly to posttraumatic symptoms
Nelson-Becker (2004)	Traumatic and everyday life events (childhood +)	Coping resources (e.g., spiritual)	Coping abilities	Interview Schedule—open ended questions about life challenges and coping abilities	Narrative analysis	Older adults were found to identify coping resources, including spirituality in their life narratives
Petkus, Gum, King-Kallimani, and Wetherell (2009)	Trauma (childhood +)	Physical health, cognitive functioning	Anxiety and depressive symptoms, psychotropic medication use, self-report health	Structured Clinical Interview for DSM; Modified Mini-Mental Status Exam; Brief Symptom Inventory; health and functional status standard assessments	t tests, chi-square, logistic regression analyses	Older adults with trauma histories had clinically significant somatic and anxiety symptoms, anxiety diagnosis, had one more chronic health condition, taking two more psychotropic medications, lower self-reported health than comparison group

(continued)

Table 4. (continued)

Author(s) (year)	Independent variable/s	Mediator/moderator/control variable(s)	Outcome variables	Central measures used	Data analysis	Major findings
Sachs-Ericsson et al. (2010)	Trauma (physical & sexual emotional-childhood)	Self-esteem, emotional reliance, activity limitations, family of origin variables	Internalizing disorders (anxiety & depressive symptoms)	Semistructured Composite International Diagnostic Interview; Child Abuse Scale; Rosenberg's Self-Esteem Scale; Emotional Reliance Scale; ADL; IADL; Family questions	Multiple regression, moderation analysis	Child abuse history was found to predict later life internalizing disorders. Self-esteem and not emotional reliance was found to moderate the abuse and internalizing disorder relationship
Schnurr, Spiro, Aldwin, and Stulkei (2002)	10 trauma events (childhood +)	None	PTSD diagnosis and symptoms (current or lifetime)	Brief Trauma Interview; Clinician-Administered PTSD Scale; PTSD Checklist; Mississippi Scale	Descriptive analyses	Lifetime symptom severity was higher in those who met DSM-IV-A.2 criterion (intense fear, helplessness, or horror) compared with those who did not
Shmotkin and Barilan (2002)	Child holocaust status	Holocaust experience (as present or past)	Physical morbidity and functioning, psychiatric symptoms	Physical risk score; ADL and IADL; chart review; psychiatric diagnoses; medication use; SCL-90; Expressions of Holocaust Experience	Correlation and factor analyses	Mental symptoms is positively associated with participants' holocaust-as-present experience and negatively associated with holocaust-as-past experiences. Holocaust-as-present high scores were related to higher risk of morbidity
Shmotkin and Litwin (2009)	(Trauma-17 events; or witness)	Age, gender, origin, education, income, marital status, health	Depressive symptoms	Traumatic Events Inventory; European Depression Scale; Center for Epidemiological Depression Scale (adapted)	Hierarchical multiple regression analyses	Self oriented adversity has a positive association with symptoms of depression. Other-oriented adversity had either no association or an inverse association with depressive symptoms
Stressman et al. (2008)	Child holocaust survivor status	Social support, gender, marital status, education, ethnicity, economic status	Physical health, mortality, functioning, depressive symptoms, cognition	Holocaust Status; Self-Rated Health; Brief Symptom Inventory; Mini-Mental Status Exam; Activities of Daily Living; Instrumental Activities of Daily Living; Mortality records	Descriptive and survival analyses	Holocaust survivors compared with a control group were more likely to have less social support, less physical activity, greater difficulty in activities of daily living, poorer self-rated health, and greater usage of psychiatric medication
Van der Hal-Van Raalte, Bakermans-Kranenburg, and Van Ijzendoorn (2008)	Child holocaust status	Cortisol levels	Physical health, depressive symptoms, PTSD, survivor experience	Cortisol Assessment; Physical Health Scale; Beck's Depression Inventory; Post Traumatic Diagnostic Scale; Holocaust Survivor Experience	Descriptive analyses	Younger holocaust survivors (aged 56-60) showed PTSD impairment with early onset of impaired stress regulation compared with older holocaust survivors (age 61+)
Yehuda, Kahana, Schmeidler, Southwick, Wilson, and Giller (1995)	Child holocaust status (childhood + and past year stress)	None	PTSD	Antonovsky Life Crises Scale; Elderly Care Research Center Life Events Scale; Civilian Mississippi PTSD Scale; Clinician-Administered PTSD Scale	ANOVA, ANCOVA	PTSD severity was positively associated to cumulative trauma and recent stress. Survivors with PTSD reported higher levels of cumulative trauma and current stress compared with comparison and non-PTSD survivors

Note: PTSD = posttraumatic stress disorder; ADL = activity of daily living; IADL = instrumental activity of daily living.

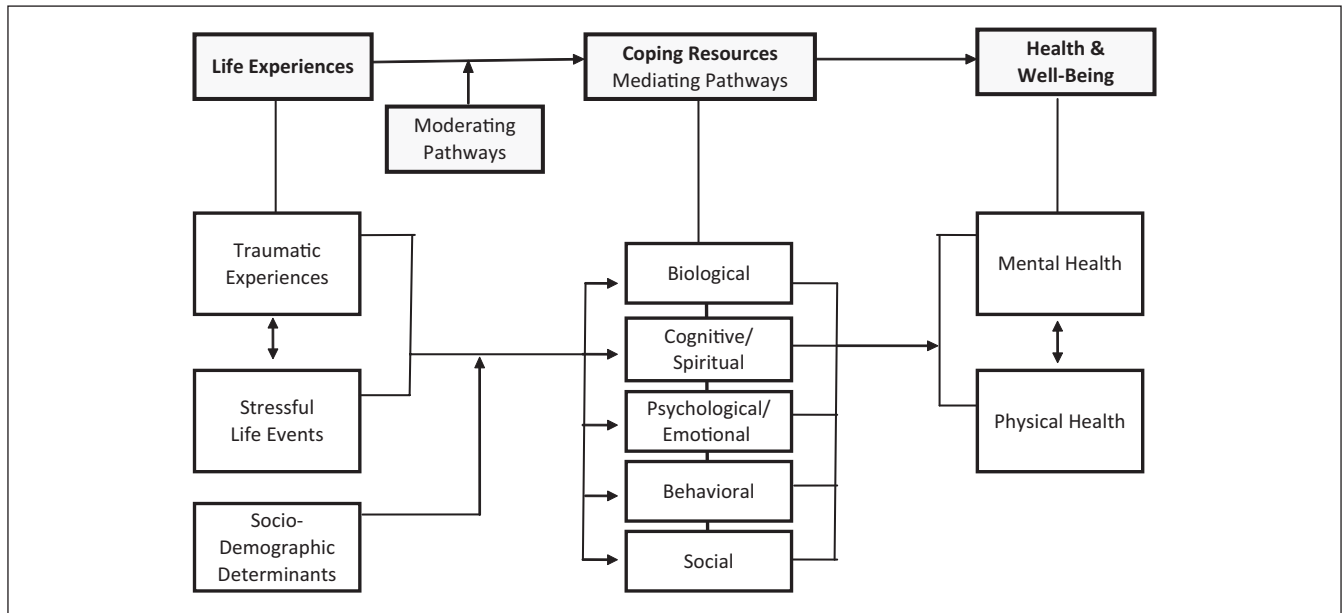


Figure 1. A theoretical model of the impact of life-course trauma on health and well-being and mediating and moderating pathways that increase or decrease cumulative risk

in life and lower levels of depressive symptoms. Lamet et al.'s (2009) results showed that an intact sense of safety contributed significantly to less posttraumatic symptoms of holocaust survivors in the post-9/11 U.S. terrorist attacks.

Positive attitudes and actions. Positive attitudes also were found to be related to positive actions. Armour's (2010) mixed-methods study of holocaust survivors, who immigrated to the United States, found common themes across participants that included positive attitudes (optimism) and positive actions related to holocaust survival during the holocaust, U.S. immigration, and later life experiences in older adulthood. For example, during the holocaust, survivors reported that they refused death as an option, felt lucky, outwitted their captors, and had a sense of hope for the future. During their post U.S. immigration, survivors focused on education, success, family, closure, proactive beliefs (gratitude and acceptance), and resolving hatred. As older adults, their focus was on health maintenance, family obligations, and fighting hatred and oppression.

Social support. Social support was another key social/environmental coping resource that was examined. The presence of social support in older adults' lives was found to be a protective factor against elder abuse (Acierno et al., 2010). Emotional social support was found to have a stress-buffering effect for adults 85 and older on their life satisfaction. In addition, other studies found participants who reported a lack of social support reported adverse physical and mental health (Stessman et al., 2008). Stessman et al. (2008) found that holocaust survivors, compared with a control group, were more likely to have less social support, less physical activity, greater difficulty in activities of daily living, poorer self-rated health, and greater usage of psychiatric medication.

Discussion

The collective results of the studies that examined the later life effects of childhood trauma showed that older adults, who had experienced trauma in childhood, were at a higher risk of later life victimization and adverse mental and physical health. Factors that fostered resiliency across the life course consisted of internal and external resources that included self-esteem, a sense of safety, spirituality and forgiveness, positive attitudes (optimism), positive actions, and social support. These findings offer directions for developing and improving theory and practice that address trauma and stress across the life span.

Refining a Life-Course Theory of Trauma and Resilience

The results of this review also suggest areas for theory development, refinement, and testing that link childhood trauma and stressful life events to later life outcomes via individual and social pathways. Figure 1 illustrates prior traumatic experiences and mental and physical health along with the biological, cognitive, psychological/emotional, and behavioral coping resources that influence mental and physical health across the life course. Individuals' responses to traumatic experiences, such as being a victim of childhood sexual abuse, may be adaptive or maladaptive and affect individuals' biological (e.g., physiological stress response), cognitive (e.g., beliefs, attitudes, spirituality), emotional (e.g., anger or sadness), behavioral (e.g., diet, substance abuse), and social (e.g., social support network) well-being. A history of earlier life trauma and determinants

may affect the quality of later life mental health (e.g., PTSD, depression, and anxiety) and physical health (e.g., chronic disease, physical functioning, and mortality).

Theoretical integration. Existing theories can explain the connection between earlier life trauma and later life outcomes (Elder, 2003; Pearlin et al., 2005). It is possible for these theories to be integrated and tested for further theoretical and research refinement. For example, an integration of the life-course development and stress-process theories link avenues where life events and cognitive processes intersect. It is clear that responses to trauma are shaped by meaning, coping, and other cognitive, emotional, and social processes which are salient points for intervention strategies. Based on Elder's (1974) work, the life-course perspective argues that significant life events, which are personal (e.g., sexual victimization) or historical (e.g., global depression or world war) influence the life-course trajectories of individuals. Thus a theoretical integration of the life-course perspective with cognitive and stress-processing theories would provide an important lens to study the impact of early life trauma on later life health and mental health profiles. Such a strategy would result in an important new area of research inquiry.

Other mediating or moderating factors, such as sense of control or mastery and social relationships, influence individual and social development, including mental and physical health (Elder, 2003). This perspective enables us to explore how traumatic experiences influence the mental and physical health of individuals across their life course. The life-course perspective involves examining contextual processes such as culture, gender, socioeconomic status, health, and mental health from a perspective of risk and resilient factors. The ways and extent to which trauma and stress influence life-course pathways have yet to be fully explored.

Stress-process theory informs life-course theory by emphasizing the timing and sequencing of significant life events and the ways in which they affect individuals' life-course trajectories. Individuals, who experience stable life patterns that are consistent or continuous generally develop relatively stable life-course trajectories (Pearlin et al., 2005). In contrast, individuals who experience one or more difficult periods of chaos or change such as childhood trauma, when a relatively smooth life transition is expected, are exposed to a heightened risk of adverse mental, physical, or behavioral consequences. This especially applies to developmentally sensitive periods in the life course. However, the adaptive use of internal and external coping resources (e.g., positive outlook or social support) may help foster a resilient response over adverse experiences.

Tenets of these singular or integrated perspectives of life-course and stress-process theories can be tested in future research studies that can be used to inform prevention and intervention efforts geared toward older adults. The overall goal of such an integration of different theories is to achieve a more inclusive and cohesive index of psychological and health functioning during periods of the life span which have been historically understudied.

Future Empirical Research Directions

The results of this review suggest a number of future directions for research. Future studies should examine the influence of life-course trauma and the individual and cumulative impact of trauma and stressful life events. These studies would be most useful if they included an evaluation of both mental and physical health. Even more importantly, examining factors that foster resilience are essential. Future studies that examine internal and external resources that may foster resilience include personality traits, such as trait anxiety, self-esteem, forgiveness, optimism, meaning in life, sense of safety, and spirituality. Behavioral coping that includes physical exercise and eating habits also are important preventive measures to examine as a protective coping resource. Social coping should include measures for social support or social resilience.

Future studies should also examine the influence of age, gender, race/ethnicity, and culture (e.g., acculturation) on the relationship of lifetime trauma to later life mental and physical health outcomes. Studies that examine the prevalence of different types of trauma include measures for the experience of prejudice and discrimination based on age, gender, and race/ethnicity.

The prior literature is plagued with differing definitions of key variables, such as trauma, self-esteem, and PTSD. Therefore, future research should incorporate more consistent definitions of key variables. Future studies also should more closely examine the psychometric properties of instruments specifically to examine the validity of standard measures of trauma assessment, health, and mental for these diverse populations of older adults, including indicators of culture, such as acculturation.

The use of mixed-methods designs may help to uncover the intervening mechanisms that prevent trauma or foster resilience among trauma survivors in later life. Quantitative studies should seek to include a nationally representative sample with oversamples of minority populations. Global comparisons of residents of different countries would help yield information on trauma and its consequences. Qualitative methods can help to unearth information to identify the factors that foster long-term resilience across the life course. This information can be used to discern all of the factors that comprise the mechanism that links earlier life trauma to later life outcomes.

Study Limitations

There are a number of limitations to this current review that warrant discussion. A critical limitation identified is the sample size is $N = 23$. Although a comprehensive examination of online search engines and article reference lists were conducted, it is quite possible that not every article that met study criteria was included. Thus, a critical reexamination of this area literature that includes more recently published studies is warranted. The synthesis of the collective findings

was based on studies that had their own methodological limitations that included the use of nonexperimental and cross-sectional designs, which limits making causal inferences. Differing definitions of posttraumatic stress and other variables used across studies also makes it difficult to compare results. Another limitation worth addressing is the differing definitions of key variables (i.e., self-esteem, stress, and most significantly posttraumatic stress).

Practice Implications

These collective findings help to inform prevention, assessment, and intervention strategies. It is clear from these findings that “an ounce of prevention is worth a pound of cure,” particularly when examining childhood trauma and later life implications. In cases where trauma is not preventable, early life detection and treatment are important in reducing the life cumulative effects of mental and physical health across the life course. These findings also suggest that it is imperative to make every effort to tackle not only the short- but also the long-term influences of life-course traumatic experiences. Currently, much of what is known about assessment and treatment of trauma, especially related to PTSD treatment, is based mostly on research and evaluation studies with samples of children and adults. However, the current research findings using older adult samples provide some information on how best to prepare helping professionals for accurate and effective trauma and PTSD assessment and intervention in working with older adults. Integrating palliative therapeutic responses as prevention and remediation strategies will also be helpful in reducing later life physical and mental health consequences of trauma and enhancing older adults’ resilience. Based on the review of the literature, the following recommendations for assessment and intervention are outlined below.

Assessment. Useful trauma assessment measures for older adults for specific kinds of trauma, such as combat exposure are available (Cook & O’Donnell, 2005). Measures relevant for assessing older adults included the Clinician-Administered PTSD Scale (CAPS), the Structured Clinical Interview for *DSM-III* (SCID), and the Mississippi PTSD Scale, all of which have been found to have high internal validity with combat veterans and other older adults populations with histories of trauma (Blake et al., 2000; Hyer, Summers, Boyd, Litaker, & Boudewyns, 1996; Neal et al., 1995). However, the extent to which these measures are relevant for diverse groups based on age, gender, and race/ethnicity remains questionable (Bright & Bowland, 2008).

Helping professionals would best serve older adults if they are competent in assessing the presence of recent developmental milestones or stressors among older adults along with past and current trauma and stress, such as childhood physical, sexual, and emotional abuse, financial abuse, and neglect. Professionals also should be cognizant of the important developmental milestones among older adults, such as

retirement, job loss, or widowhood, which may trigger psychological distress or even PTSD symptoms (Hyer & Sohnle, 2001). As the literature suggests, an assessment of other comorbid mental health problems, elder abuse, physical health, and available social support is warranted (Krause, 2004).

Agencies and organizations that serve older adults, such as medical clinics or nursing homes, would provide improved service provision to older adult clientele by adopting agency policies that include routine assessment for current and past trauma and other stressful life events. Identifying valid measures based on the agency setting and the characteristics of the older adult population served is critical. Depending on the nature of intake and worker expertise of an agency setting, structured interviews or rapid checklists could be used. As revictimization (elder abuse) is correlated with past trauma, having staff trained in current elder abuse assessment is warranted (Cook & O’Donnell, 2005).

Screening for psychiatric symptoms, especially depression and anxiety, and physical functioning also would assist in identifying other potential service needs and the need for service linkages (Davies, 2003). Agency directors also should provide training to prepare their staff for interdisciplinary collaboration because older adults’ diverse physical, mental health, social, and social service (financial) needs are distributed across different sectors of care.

Assessing for cultural trauma or stress is another important concern. To meet the cultural diversity needs of agency populations served, some trauma assessment measures might have to be modified to include all types of past and current trauma that also include cultural indicators, such as political refugee status and forced relocations. In addition, older adults’ level of acculturation may be a source of continuing stress or conflict or a source of resilience. For example, the cultural transition of Latinos has been recognized as having implications for the mental and physical health outcomes of immigrant adults (Alegria, Canino, Shroat, & Woo, 2008). However, there is limited research that examines the influence of acculturation among ethnically diverse older adults with histories of trauma or their experience of discrimination as a child (e.g., school bullying) or adulthood (e.g., employment discrimination).

Intervention. There is limited evidence available about the effectiveness of trauma treatment with ethnically diverse populations of older adults. Some promising practices include the Hyer and Sohnle (2001) PTSD treatment model. This PTSD treatment model is implemented in stages in which older adults’ acute mental health symptoms are first treated followed by treatment strategies that build older adults’ internal and external coping resources, especially the reinforcement of social support.

Psychosocial prevention and intervention programs that foster interpersonal resources, such as cognitive resources and emotional and psychological resources, are warranted. This type of programming might include activities such as

physical exercise, spirituality (e.g., meditation or yoga), stress management, creative arts, and social support groups. Cognitive-based interventions that target sense of meaning, sense of safety, and self-esteem, including program components and social support, may help foster resilience among older adults. This type of multifaceted management of stress and anxiety could assist with minimizing the reoccurrence of stress related to recent events, such as the death of family members or friends.

Programs that are culturally relevant should address acculturation, age, race, and gender differences in the types of trauma experienced and their response. The use of the arts, such as group drumming, for a culturally sensitive stress-reduction technique may be a promising nonverbal practice and congruent with cultural practices (MacMillan, Maschi, & Tseng, 2012; Maschi & Bradley, 2010).

Organizations serving older adults can engage in practice-based research using agency case records, including effective treatments that fostered resilience among clientele. The factors that foster resilience point in directions for factors that should be addressed in the treatment. Agency records may include information as to successes and failures in treatment that might provide additional data to improve trauma and stress management with older adults.

Palliative approaches to trauma prevention and intervention. In addition to the life-course perspective discussed above, consideration of person-in-environment ecological, public health, and care ethics perspectives help to illuminate the strengths of palliative care approaches to trauma prevention, assessment, and intervention in older adults. Federal health reform (Affordable Care Act, 2010) implementation is driving rapid integration of primary care and mental health care. Increasingly, the focus in health care delivery is person-centered care, not the nature of one's illness, diagnosis, or treatment. The adoption of a person-centered approach in palliative care is consistent with successful therapies for trauma survivors (Maschi, Morgen, Zgoba, Courtney, & Ristow, 2011).

In a palliative model of care, the patient and family are the unit of care. Shared informed decision making is based on identifying the patient's goals of care, care planning, and improving communication among the patient, family, and members of the interdisciplinary team (Bomba, Morrissey, & Leven, 2011; Fins, 2006). Early conversations with patients, families, and their health professionals are aimed at future care planning including planning that addresses both health and mental health needs. The prevention and relief of pain and suffering are also primary aims of palliative care. In studies of illness, trauma has been found to be a dimension of older adults' lived experiences of pain and suffering (Morrissey, 2011a, 2011b). Attunement to older adults' social ecological contexts, life-course histories, and social and developmental aspects of temporal experiences can inform palliative therapeutic responses to the aging person that target the

reduction and relief of trauma, pain, and suffering and strive to enhance the quality of life (Morrissey, 2011a, 2011b).

Conclusion

In conclusion, the argument to take action on unraveling the correlates and consequences of childhood trauma on later life consequences is compelling. As these results suggest, trauma is a diverse and global phenomenon with life-course ramifications. The deleterious effects of trauma can be life-course persistent and affect the well-being of individuals, families, and communities. There are multiple points in the life course to prevent or ameliorate interpersonal- and community-level violence and stress by fostering the internal and external resources of those individuals, families, and communities at risk. Future research can expand our knowledge by conducting meta-analyses of trauma on specific mental or physical health variables, such as depression, PTSD, physical functioning, such as activities of daily living, and subjective well-being. In addition, empirical studies can test tenets of the theoretical model garnered from this synthesis of the extant literature. In practice, helping professionals, especially social workers, are well poised to develop or refine trauma-informed psychosocial- and community-level interventions that can prevent whenever possible and assess and treat when needed. These efforts will help provide the systemic social support that can help foster lifetime resilience from childhood to older adulthood for all persons.

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