Caring for Traumatized Elders:

Lessons Learned From Trauma-Informed Care

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Lessons Learned at the Interface of Medicine and Psychiatry

The Psychiatric Consultation Service at Massachusetts General Hospital sees medical and surgical inpatients with comorbid psychiatric symptoms and conditions. During their twice-weekly rounds, Dr Stern and other members of the Consultation Service discuss diagnosis and management of hospitalized patients with complex medical or surgical problems who also demonstrate psychiatric symptoms or conditions. These discussions have given rise to rounds reports that will prove useful for clinicians practicing at the interface of medicine and psychiatry.

Prim Care Companion CNS Disord 2024;26(2):23f03643

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Have you ever wondered how you could identify which of your elderly patients is most vulnerable? Have you been concerned about how care can be complicated by the sequelae of trauma? Have you been wary of retraumatizing patients in your effort to manage their distress? Have you been uncertain about whether you could enhance their trust in you and in your recommendations? If you have, the following case vignette and discussion should prove useful.

CASE VIGNETTE

Ms X, a 68-year-old woman with a history of coronary artery disease, diabetes mellitus, and cataracts, was admitted to the surgical service with increasingly severe claudication; revascularization was planned. However, while being prepped to go to the operating room, she became panic-stricken and insisted on returning to her room. Shortly after she returned to her room, she left the hospital against medical advice. Two weeks later, with persistent and severe claudication, she was readmitted to the surgical service. Once again, she became filled with panic en route to the operating room, and she insisted upon returning to her room.

A psychiatric consultation was requested. The consultant suspected that Ms X could be a trauma survivor.[1] To this end, after establishing rapport with Ms X, the consultant used the Life Events Checklist (LEC)[2] to screen Ms X for a history of trauma. The consultant learned that Ms X had been raped as a teenager by a group of men as she walked home from school. She had never told her medical providers about this event. She recounted to the psychiatrist that being hastily undressed in preparation for her surgical procedure brought back the terror and loss of control that she experienced during (and after) her rape. She understood that her surgery was crucial for her ongoing health, and she wanted to undergo the surgery; however, she felt ill-equipped to handle the distress that was triggered by her preoperative care.

Following the principles of trauma-informed care (TIC), which emphasize safety, trust, empowerment, choice, and collaboration, the consultant worked with Ms X and her surgical team to develop a collaborative plan that would minimize her psychological distress and allow her to undergo the necessary surgery. The plan included having a nurse review each part of the procedure in detail with Ms X the day before the surgery, allowing her to disrobe herself, and allowing her to maintain control over which of her team members could attend to her needs.

DISCUSSION

What Types of Trauma Experienced Earlier in Life Can Complicate the Lives and Medical Treatments of Elderly Patients?

Traumatic experiences occur throughout the lifespan. Most older adults who experience trauma do not suffer from long-term adverse sequelae. However, for a smaller proportion of older adults, trauma may continue to impede physical and emotional functioning, even when

Clinical Points

- Patients with a history of trauma may experience heightened anxiety and fear when faced with medical settings, examinations, or treatments; these distressful feelings can interfere with their ability to provide accurate medical information, discuss their concerns with their provider, and follow treatment recommendations, particularly when managing multiple medications and their potential interactions, and may result in skepticism or resistance to recommended medical interventions.
- The 4 "Rs" of trauma-informed care are realizing the impact of trauma in the general population, recognizing its signs and symptoms, responding by integrating knowledge of the impact of trauma across all levels of the institution, and making all efforts to avoid retraumatizing survivors.
- Opportunities for enhancing trust in your recommendations include prioritizing clear communication and transparency around clinical decision-making, enhancing clinical continuity by offering provider consistency and thorough chart review, acknowledging that your patient may have had retraumatizing interactions with health care providers, and demonstrating a commitment to avoid repetition of those mistakes.

experienced early in life. Impaired functioning caused by trauma may manifest as disorders of affect, behavior, or cognition as well as by medical illnesses, and impaired interpersonal functioning or autonomic arousal.

Myriad traumatic events (eg, natural disasters,[3] war,[4] interpersonal violence,[5] elder mistreatment,[6] and surviving the Holocaust[7]) may increase the risk for psychiatric disorders, impaired functioning, and interpersonal challenges even decades after the initial trauma. Compared to other types of trauma, interpersonal trauma is typically associated with more severe psychopathology.[8]

Childhood adversity is a type of interpersonal trauma with a documented impact on health and function later in life. Since the original research was published in the 1990s, trauma and chronic instability that occur during childhood and adolescence have been operationalized as adverse childhood experiences (ACEs),[9] which are defined as abuse, neglect, and household dysfunction that occurs before the age of 18. Specifically, ACEs include verbal, physical, and sexual abuse, witnessing interpersonal violence between one's parents, household substance abuse, household mental illness, having incarcerated family members, and parental separation or divorce. ACEs contribute to negative emotional, social, and medical outcomes in later adulthood.[9] Importantly, the original research on ACEs showed that the impact of trauma is "dose-dependent," with the severity of adverse outcomes being dependent upon the type, frequency, and severity of traumatic events.[10] The timing of adverse events seems to be important as well, with specific deficits and psychopathology corresponding to certain types of abuse that occur at different developmental stages.[11]

ACEs have been linked to both psychiatric and medical problems in later life, as well as to interpersonal and affective disturbances. For example, childhood trauma is associated with a higher risk of late-life posttraumatic stress disorder (PTSD),[12] depression,[13] anxiety,[14] personality disorders,[15] and substance use disorders.[12] Compared to adults with these psychiatric conditions but without a history of ACEs, older adults with ACEs tend to experience symptoms earlier and with a greater severity.[16] ACEs have also been linked to a range of medical problems (including arthritis, back problems, high blood pressure, migraine, chronic bronchitis/emphysema/chronic obstructive pulmonary disease [COPD], cancer, stroke, bowel disease, and myalgic encephalomyelitis/chronic fatigue syndrome).[17]

Underlying these specific psychiatric and medical diagnoses, ACEs are associated with a range of transdiagnostic processes that can interfere with social functioning and cognitive and affective processing[18] and lead to increased pain and decreased physical functioning[5] as well as hypervigilance, loneliness, aggression, somatization, emotional dysregulation, interpersonal instability, and insecure attachments.[19,20] These processes can complicate medical care, interfere with the doctor-patient relationship, and elicit strong emotional reactions in clinicians.[21]

How Can You Identify Which of Your Elderly Patients Are Most Vulnerable?

Trauma may contribute to a range of psychiatric disorders among older adults. In this discussion of assessment, we will focus on PTSD as the disorder with the clearest causal link to trauma. Accurate identification of PTSD in older adults requires an age-appropriate assessment of the diagnostic criteria, as well as an assessment of factors that may place older adults at greater risk for more severe symptomatology.

According to the *Diagnostic and Statistical Manual of Mental Disorders*, Fifth Edition (*DSM-5*),[22] PTSD may only be diagnosed when certain criteria are met. Criterion A defines a traumatic event as exposure to actual or threatened death, serious injury, or sexual violence (through directly experiencing the event, witnessing the event, learning that it occurred, or experiencing repeated exposure to details of the traumatic event). Importantly, not every traumatic event meets this definition. Other types of trauma may contribute to psychopathology but would not warrant assessment or diagnosis of PTSD. The LEC is a useful instrument for determining the nature of the traumatic event. Criterion B describes intrusive symptoms, such as flashbacks or nightmares (1 symptom required). Criterion C addresses persistent avoidance of stimuli associated with the traumatic event(s) (to avoid distressing memories,

thoughts, or feelings associated with the traumatic event; 1 symptom required). Criterion D includes impaired cognitions and mood (2 symptoms), and Criterion E specifies changes in arousal and reactivity, including hypervigilance and sleep disturbance (2 symptoms).

The PTSD Checklist for *DSM-5* (PCL-5)[2] is a commonly used diagnostic tool. The commonly used PCL-5 threshold for likely PTSD is 33, although some researchers recommend a lower threshold for older adults, given lower overall symptom endorsement among this population.[23]

When evaluating older adults, it is helpful to remember that symptoms of PTSD may manifest in different ways. Compared with younger adults, older adults with PTSD report less severe symptoms, fewer intrusive thoughts, and less avoidance, while endorsing higher levels of hypervigilance and more somatic symptoms.[24] Subthreshold PTSD is far more common than full PTSD, and it is also associated with impaired psychological functioning. Thus, even in the absence of full *DSM-5* PTSD criteria, patients may still experience distressing and impairing traumatic reactions.[25] Early-life trauma is associated with an increased risk for a range of psychiatric illnesses among older adults; thus, a trauma history should be assessed independently of any specific diagnosis. Importantly, care must be taken when inquiring about painful traumatic events, such as childhood maltreatment or sexual abuse, as older patients may be reluctant to disclose this information.[26]

Numerous factors increase an older adult's vulnerability to trauma-related pathology. Demographic factors (such as lesbian, gay, bisexual, transgender, queer [LGBTQ+] identity,[27] female sex,[28] and black race/ethnicity[29]) all increase the risk for psychopathology following trauma. Life stressors may also be relevant; PTSD can manifest as a fluctuating course among older adults or may be dormant until it is reactivated by a new stressor or a trauma that arises in later life.[30] Therefore, older adults with a trauma history who are experiencing significant stress in the form of illness, loss, life transition, or functional impairment may be vulnerable to increased symptom severity.

Personal and interpersonal variables are also relevant to trauma-related pathology. For example, personality features, such as high neuroticism and low extraversion, have been shown to mediate the relationship between childhood trauma and late-life depression and anxiety.[31] Trauma increases the risk for disrupted attachment in older adults, putting them at risk for loneliness, impaired coping with stressful situations, and poor social support.[19] Older adults who felt invalidated by others following their traumatic experiences may also be at increased risk for problems in later life,[32] as may those who have experienced racial or ethnic discrimination.[33] Importantly, for providers, older adults who were victimized as children are at greater risk of being revictimized in later life.[34] This underscores the importance of assessing older patients for current physical, sexual, and emotional abuse, neglect, and financial fraud.[35]

Awareness of older patients' demographic risk factors and experiences with discrimination and invalidation, and assessment of patients' loneliness, social support, and coping skills can help clinicians identify patients who most need trauma-informed approaches. This information may also help providers protect their patients against future revictimization.

How Common Are Physical, Sexual, and Emotional Abuse and Neglect in Adulthood?

Although much attention has been paid to understanding the various types of abuse (eg, physical, sexual, or emotional) and neglect in childhood, they are also common in adults. Physical abuse among adults encompasses the intentional use of force that results in harm or injury, and it can be inflicted by intimate partners, family members, or staff in institutional settings. According to the National Intimate Partner and Sexual Violence Survey (NISVS),[36] nearly 20 people every minute are physically abused by an intimate partner in the United States; this accounts for more than 10 million adults (both women and men) who experience such abuse each year. Moreover, approximately 1 in 4 women and 1 in 7 men have been the victim of severe violence (eg, beatings, burnings, or strangulation) at the hands of an intimate partner. Among the elderly, physical abuse is an important public health problem. A large systematic review (involving 52 geographically diverse studies)[37] reported that adults older than 60 have experienced physical abuse in community or institutional settings at rates ranging from 2.6% to 14.1%, respectively. Emerging data also indicate that the prevalence rates of any form of abuse, including physical abuse, in both community and institutional settings substantially increased during the COVID-19 pandemic; thus, approaches to TIC should be tailored specifically to the geriatric population.[38]

Sexual abuse refers to nonconsensual sexual activity that is imposed upon an individual, regardless of their gender. Certain groups face a higher risk of sexual abuse, including those who have been subjected to coercive behaviors in intimate partner relationships, members of vulnerable populations (eg, sex workers, individuals with physical or functional disabilities, and those with serious mental illness or cognitive impairment), individuals in institutional settings (eg, nursing homes and residential care facilities), and those who are marginalized or socioeconomically disadvantaged (eg, individuals facing poverty, racial discrimination, homelessness, and low social support).[39] Extensive research that spans more

than 40 years suggests that sexual abuse is common in adulthood. It is estimated that approximately 17%–25% of women and 1%–3% of men have been sexually abused during their lifetime; moreover, according to the NISVS, approximately 1 in 5 women and 1 in 71 men in the United States have been raped.[36,40,41] Nevertheless, sexual abuse is commonly underreported, and these survey rates may be an underestimate of the true extent of the problem.

Emotional or psychological abuse often occurs in adult relationships with intimate partners, family members, friends, and colleagues. Certain individuals are at a higher risk of experiencing emotional abuse, including those who have been subjected to psychological manipulation in intimate partner relationships, the elderly residing in institutional care settings, and individuals with intellectual disabilities.[42] The lifetime prevalence rate for emotional abuse varies by gender, with women consistently reporting higher rates of emotional abuse over their lifespan compared to men.[43]

Neglect of adults can manifest in a variety of contexts (eg, caregiving relationships, dependent adult relationships, and situations where individuals fail to adequately care for themselves). However, there is a scarcity of epidemiologic data regarding the prevalence of neglect in adulthood. The paucity of research in this area underscores the need for further investigation to understand the drivers and the impact of adult neglect. By bridging these knowledge gaps, clinicians can develop more effective strategies for prevention and intervention in cases of adult neglect in myriad settings. These efforts will contribute to enhancing their well-being and safety.

What Are the Acute and Chronic Manifestations and Sequelae of Abuse and Neglect?

Table 1 lists several acute and chronic manifestations of abuse and neglect. In brief, the signs and symptoms that arise in response to maltreatment include physical injuries, emotional distress, fear, and neglect-related health issues. Chronic manifestations often involve profound and enduring effects on physical and mental health (eg, chronic pain, psychiatric disorders, difficulties forming and maintaining social relationships, and chronic health problems).

What Is Meant by TIC and Who Can Provide It?

TIC is based upon the principles and practices of understanding and responding to the high prevalence and widespread impact of trauma.[44] The 4 "Rs" of TIC are **r**ealizing the impact of trauma in the general population, **r**ecognizing its signs and symptoms, **r**esponding by integrating knowledge of the impact of trauma across all levels of the institution, and making all efforts to avoid **r**etraumatizing survivors.[45] The key components of TIC are assuring safety, trustworthiness, and transparency; providing peer support; being collaborative; facilitating empowerment; and providing care in a cultural and historical context with sensitivity to gender issues.[45] Anyone who cares for patients (on an individual, organizational, or policy level) is encouraged to embrace the principles of TIC.

Several TIC concerns are relevant to the care of older adults. Given the high prevalence of abuse and neglect, all patients should be screened for a trauma history. Interviewers should be mindful of general cultural,

Table 1.

Acute and Chronic Manifestations of Abuse and Neglect

Form of abuse or neglect	Acute manifestations	Chronic manifestations
Physical abuse	Signs of injury (eg, bruises, cuts, and burns) Fractures Physical symptoms (eg, pain, difficulty moving, or discomfort)	Repeated injuries Chronic pain Physical or functional disabilities Development of chronic health conditions
Emotional abuse	Symptoms of anxiety (eg, restlessness and irritability) Emotional distress (eg, frequent crying) Depressive symptoms (eg, anhedonia, sadness, and hopelessness) Frequent mood swings Fear and apprehension	Development of chronic mental health conditions (eg, anxiety and depression) Social withdrawal or isolation Self-blame and guilt Difficulty making or maintaining relationships (eg, trust issues)
Sexual abuse	Physical symptoms (eg, pain, bleeding, and injuries) Psychological symptoms (eg, shame, guilt, and confusion)	Posttraumatic stress disorder Chronic pain Physical or functional disabilities Sexual dysfunction
Neglect	Malnutrition Dehydration Poor hygiene Inadequate clothing Unsafe living conditions	Chronic malnutrition Nutritional deficiencies Reluctance to undergo medical examination or treatment Development of chronic health conditions

Table 2.
Interviewing Techniques Relevant to Trauma-Informed Care

Body language	• Employ an open posture[48]
Before the interview	• Tell the patient what is going to happen • Let them know that they do not need to answer every question and that they can choose how much to share[44]
During the interview	• Provide the rationale for asking questions, especially for those questions that do not relate to the patient's current problem[44] • Allow the patient to ask questions and to elaborate on their experience[46] • Assess the patient's strengths and protective factors[49] • Offer empathic statements (eg, "Thank you for explaining your history to me," "It makes sense that you would have felt scared," "That must have been very painful")[48]
After the interview	• Provide additional resources[46]

historical, and gender issues for their patients while inquiring about their individual experience.[46] Older adults may not perceive their life events as traumatic and view labeling their experiences as such as being self-indulgent. As a result, they may minimize or deny their experiences.[47] Given the inherent power imbalance between interviewers and patients, interviewers should emphasize that they are working on a team, and the patient's strengths (eg, resilience and support systems) should be highlighted.[46] Finally, interviews should adapt to the clinical context and the role of the interviewer (Table 2).[44,46,48,49]

How Can You Enhance Trust in You and in Your Recommendations?

Opportunities for enhancing trust in your recommendations include prioritizing clear communication and transparency around clinical decision-making, enhancing clinical continuity by offering provider consistency and thorough chart review, acknowledging that your patient may have had retraumatizing interactions with health care providers, and demonstrating a commitment to avoid repetition of those mistakes.

Clear communication. Trustworthiness and transparency form the foundation of health care. Ashworth and colleagues[46] recently recommended that providers introduce themselves and their role in their patient's care at the beginning of each visit and then state their goals for the appointment; in addition, they suggested that clinicians explicitly ask their patients whether they have any questions for them. Before any procedures, even noninvasive ones, the rationale for the procedure should be reviewed (and include how the information gleaned from the examination or test will be used to further their care).[46] When planning treatment, each option should be discussed in layperson's terms; this facilitates asking the patient about their hopes and concerns related to each path, leaving time for questions, whenever possible.[50] Although the next steps of treatment may appear obvious to health care providers, these steps may not be clear for patients.

Continuity. Patients with a history of trauma often endorse frustration around a lack of continuity in their health care providers, as this lack of continuity inhibits the development of trust in their health care team,[51] and feeling that providers may not understand their history or its context.[51] Unfortunately, provider continuity is not always feasible. However, trust can be enhanced by demonstrating that you have thoroughly reviewed your patient's medical record before their visit and that you will take the time to listen carefully to their story.

Efforts to prevent retraumatization. Trust can also be facilitated by avoiding retraumatization. Organizations and health care systems can inadvertently create situations and environments that are reminiscent of your patient's trauma (by creating a sense of disempowerment and helplessness).[52] It is also useful to avoid unintentional blaming of the victim, which quickly erodes trust. Such an approach is particularly important when your patient feels marginalized and discriminated against (due to their race, gender identity, sexual orientation, disability, or another stigmatized status).[53]

How Can the Sequelae of Trauma Be Managed?

The sequelae of trauma can be managed through psychotherapy, medications, or a combination of both. The American Psychological Association (APA) strongly recommends the use of cognitive-behavioral therapy (CBT), cognitive therapy, cognitive processing therapy (CPT), and prolonged exposure (PE) therapy for individuals with PTSD.[54]

CBT is a widely used form of therapy that helps patients to identify and modify unhelpful or harmful thoughts and beliefs, thereby resulting in positive changes to thoughts, feelings, and behaviors.[55] Cognitive therapy focuses primarily on thoughts or cognitions. In CPT, patients are taught to identify "stuck points" and

challenge trauma-related beliefs that adversely impact their functioning.[56] Finally, in PE therapy, patients engage in imaginal exposures of the traumatic event, and in vivo exposures to associated feared stimuli.[57] Treatments with a provisional recommendation by the APA include eye movement desensitization and reprocessing (EMDR), narrative exposure therapy (NET), and brief eclectic therapy.[54]

In addition to these cognitive behavioral and exposure-based interventions, other psychotherapies that can help manage the sequelae of trauma are life review therapy, spiritually focused therapy, and integrative treatments.[23,58] Yoga and mindfulness-based interventions are effective and feasible options that can be adjunctive or an alternative to traditional talk therapies.[59,60] While there is a dearth of literature on evidence-based interventions for older adults with PTSD, there is a larger body of research that supports evidence-based interventions for older adults with depression. In general, older adults are likely to benefit from mental health treatment.[23]

It is useful to know that older adults engaging in psychotherapy may have age-related health concerns, such as impairments in cognition, hearing, and vision, as well as pain.[23] Apprehension about cardiovascular or respiratory issues can be addressed through careful monitoring and collaboration with a patient's physician. Most older adults can tolerate exposure-based therapies that may induce a stress response.[61] Attention should be given to other psychiatric comorbidities, and a TIC approach should be used throughout.[23]

The primary pharmacologic treatments for PTSD and trauma-related sequelae (eg, anxiety and depression) are the selective serotonin reuptake inhibitors (SSRIs), such as sertraline, fluoxetine, escitalopram, and paroxetine, and the serotonin-norepinephrine reuptake inhibitors (SNRIs), such as venlafaxine.[62] Additional medications include mirtazapine, a noradrenergic and specific serotonergic antidepressant, and amitriptyline, a tricyclic antidepressant. Providers should exercise caution when prescribing psychotropics to older adults and consider the risks and benefits in the context of a patient's current treatment plan and medical morbidities.[63] For example, benzodiazepines and beta-blockers may lead to adverse health effects (eg, increasing the risks for falls) among older adults.[64] Escitalopram and sertraline have also been recommended over other SSRIs because they have fewer drug-drug interactions.[65] Providers can refer to clinical guidelines and best practices for prescribing medications for older adults, such as the Beers Criteria.[66]

How Can Emotional Reactions to Past Trauma Interfere With Medical Examinations and Treatments?

Medical examinations or procedures may serve as triggers for traumatic memories that pose challenges to communication, patient-provider trust, medical examinations, and treatments. Patients with a history of trauma may experience heightened anxiety and fear when faced with medical settings, examinations, or treatments. These distressful feelings can interfere with their ability to provide accurate medical information, discuss their concerns with their provider, and follow treatment recommendations, particularly when managing multiple medications and their potential interactions. The interference in communication brought on by these feelings of distress may further result in skepticism or resistance to recommended medical interventions and hinder accurate treatment planning. Beyond communication complications, some patients with a trauma history may engage in avoidance behavior to protect themselves from reexperiencing distressing emotions or memories. While patients may engage in avoidance as a protective behavior, avoidance may contribute to resistance to undergoing necessary medical examinations or treatments, effectively reducing the patient's ability to access necessary care. As a result, patients may miss appointments, fail to follow prescribed medications, or disengage from recommended therapies due to emotional barriers. Additionally, trauma can influence an individual's perception of pain, potentially leading to heightened pain sensitivity and emotional numbing in response to pain. Either response may influence pain reporting, complicate the management of pain and other conditions, and cloud treatment decisions.[67,68] Further, trauma-related stress can manifest in physical symptoms that have no apparent medical cause, leading to various unexplained physical complaints, posing additional challenges for health care providers in differentiating between trauma-related symptoms and other medical issues.

Patients who have experienced trauma may exhibit angry outbursts, negative mood states, difficulty trusting authority figures, and wariness about medical advice, all of which may create problematic interactions with medical providers.[69–71] At its worst, difficulties in or strain on the patient-provider relationship may lead to misdiagnosed symptoms. For example, nightmares and emotional or behavioral outbursts may be mistaken for symptoms of other conditions like Alzheimer's disease, rather than being related to the patient's history of trauma.[72,73] More commonly, when reactions due to past trauma are poorly understood, this misinterpretation may lead to patients being viewed negatively and labeled as "difficult" and interfere with the quality of care received.[74]

A myriad of reactions to past trauma can interfere with medical examinations and treatments. Patients with a history of repeated injuries may develop chronic pain, physical disabilities, and chronic health conditions that can hinder their ability to undergo medical examinations and treatments effectively. Chronic manifestations of

anxiety, depression, and social withdrawal can lead to reluctance in seeking or complying with medical care. For example, individuals who have experienced sexual trauma may suffer from PTSD and sexual dysfunction, which may effect their willingness to undergo sensitive medical examinations. Additionally, adults who have endured neglect may exhibit reluctance to undergo medical examination due to the long-standing effects of neglect, such as a history of malnutrition, dehydration, or living in unsafe conditions. In these ways, a patient's history of trauma may influence their feelings or perceptions of medical settings as safe spaces in which they can trust providers to perform examinations with care and recommend necessary treatments in earnest. Understanding and addressing these reactions empathically is essential for providing effective care in medical settings that may be seen as safe and ensuring the well-being of those who have experienced trauma.

How Often Do Traumatic Experiences Arise in the Elderly and Get Reactivated by Therapeutic Interventions?

Most adults older than 65 have experienced some form of trauma during their lifetime; the lifetime prevalence among this age group is as high as 70%.[75] Unfortunately, many events that are experienced as we age can reactivate memories of trauma that in turn may interfere with adherence to treatment and medical examinations. The frequency with which reactivation occurs due to medical examinations and treatments is influenced by the nature of the trauma experienced, the type of medical treatment, and the characteristics of individual patients and providers. Exposure to a similar environment within which the trauma was experienced increases the likelihood of reactivation. For example, for some patients preparing for surgical treatment may trigger unwanted memories and feelings related to past traumas. The severity and recency of the traumatic experience may effect the intensity of memory reactivation in these circumstance. Experiences of severe traumas may have a more profound and lasting impact on patients' responses, and the more recent the traumatic event, the more likely it may be to resurface during medical procedures.[23] Additionally, whether the individual has had adequate time and support in coping with their trauma may affect the likelihood of memory reactivation. Importantly, as traumatic experiences and their effects can accumulate throughout life, older adults may be particularly susceptible to the reactivation of traumatic memories.

Reactivated memories often retain a vivid intensity and a feeling of present threat, even when reactivation occurs decades after the original trauma.[23,76] These memories can be reactivated by common age-related events, such as changes in health status and mobility, the loss of social support networks following retirement, or the deaths of loved ones.[23,77] Additionally, some evidence suggests that older adults may respond with stress-related symptoms more often than younger adults, particularly when experiencing events like the loss of a spouse,[78] the risk of which increases with age.[23]

Older adults are more likely to have experienced certain types of trauma that can affect the risk of reactivation during medical examinations. Since it is more likely for older adults to have faced major medical events, surgeries, and health challenges without the benefit of contemporary medical advancements and technology, these medical experiences can influence their experience and perception of care in the present.[79] Older adults are more likely to have experienced multiple personal losses, as well as historical events (such as World War II, the Korean War, and the Vietnam War) that may have involved direct exposure to violence, loss, and displacement.[80] Adults from racial and ethnic minority groups may have also experienced historical racial discrimination, segregation, or civil rights struggles, which have lasting psychological, social, and physical health impacts and contribute to disparate health outcomes. While older adults may have experienced these potentially traumatic events, each generation may have unique traumas and stressors, and understanding these differences is crucial for providing age-appropriate TIC and support.

By recognizing and addressing the potential for trauma reactivation, health care providers can contribute to the overall well-being of their patients and ensure that respectful medical care can be delivered in a manner that considers their emotional needs. In this way, health care professionals can create a supportive and understanding environment that reduces the risk of trauma-related distress during medical procedures. The implementation of TIC practices during medical procedures can minimize the chances of reactivating traumatic memories. Being sensitive to trauma history, creating a safe environment, and providing appropriate support can mitigate the potential for reactivation. Understanding the factors that contribute to trauma in this population and tailoring therapeutic interventions is crucial to promoting their well-being and safety.[23]

What Are the Behavioral and Medical Sequelae of Trauma?

Traumatic experiences can influence health-related choices and behaviors, interactions with medical providers, and health care utilization. Past trauma can create barriers to seeking health care, including the fear of medical settings, distrust of health care providers, or difficulty expressing health concerns due to trauma-related symptoms. Trauma survivors may struggle with adhering to medical treatment plans, which can affect their ability to manage chronic conditions and achieve better health outcomes. Some forms of trauma can alter

an individual's perception of their health, leading to a focus on physical symptoms and perceived vulnerabilities rather than overall well-being. Traumatic experiences can effect an individual's self-efficacy in health behaviors, leading to reduced self-care and neglect of health needs. Further, trauma survivors may engage in risky behaviors or have a sense of invulnerability, which can lead to increased exposure to health risks.[81]

Other medical comorbidities can interact with the sequelae of trauma-related symptoms bi-directionally to further compromise overall health. For example, PTSD frequently co-occurs with chronic conditions like COPD. PTSD symptoms may worsen adherence to COPD treatment, and COPD exacerbations may, in turn, interact with and worsen PTSD symptoms.[82] Further, among those living with PTSD, there is an increased risk for accelerated aging and disability. Importantly, these effects of comorbidities can be particularly pronounced in end-of-life care settings, where patients may struggle to describe their traumatic experiences, and symptoms may be misinterpreted as other conditions.[75] Additionally, the emotional distress caused by trauma can lead to an increase in appetitive behaviors, such as eating, drinking, and smoking. In this way, traumatic experiences can lead to negative health behaviors and negatively effect quality of life, leading to lower reported levels of well-being and life satisfaction.[83] Some studies suggest that individuals with high ACEs scores may experience accelerated biological aging, which can manifest in cellular and molecular changes.[84,85] Individuals with a history of ACEs may utilize health care services more frequently due to an increased risk of physical and mental health issues.[86,87] Further, adults who experienced ACEs may also engage in unhealthy coping mechanisms or adopt poor health behaviors,[88] such as smoking, excessive alcohol consumption, sedentary lifestyles, and poor dietary habits. These coping behaviors may increase trauma survivors' risk of developing chronic health conditions, such as cardiovascular disease, autoimmune disorders, gastrointestinal disorders, and chronic pain syndromes. The physiological impact of trauma itself may further contribute to the development or exacerbation of these conditions.

Sensory changes associated with aging can be influenced by trauma. Hearing loss, which is common among older adults, can lead to mishearing and an increased risk of auditory hallucinations (associated with PTSD). Adjusting communication methods (such as using hearing aids, pocket talkers, and adjusting voice tone, speed, and volume) may be necessary in facilitating effective communication. Trauma can also affect the amount of pain that patients report, and it is essential to encourage reporting and educate patients, rather than accepting the notion that pain is a normal part of aging.[75]

Overall, the influence of trauma on current health behaviors is multifaceted, affecting cognitive functioning, sensory perception, pain perception, and psychiatric conditions. Understanding these influences and adopting strategies that consider the specific needs of patients with trauma histories is crucial for providing effective and empathetic care.

THE SIGNIFICANT IMPACT OF PAST TRAUMA ON HEALTH BEHAVIORS TODAY

Reactions to past trauma can vary widely, from disengagement to tearful recounting to panic, leading to problematic interactions with medical providers. Patients may exhibit resistant behavior or experience reactivating memories during medical examinations, influencing their willingness to seek or comply with medical care. The role of comorbidities is also crucial, with trauma-linked PTSD being associated with increased risk for chronic health conditions and accelerated aging. Cognitive, sensory, and pain-related alterations may also be observed in patients with trauma histories. Understanding these effects and adopting strategies to address patients' unique needs is essential for providing effective and empathic care in medical settings. Understanding the impact of trauma on health behaviors is essential in order for health care providers and support systems to provide TIC. Tailoring interventions that address the emotional and psychological aspects of trauma can help create a supportive environment that encourages healthier behaviors and promotes overall well-being for trauma survivors. By recognizing the potential influence of trauma on health behaviors, health care providers can offer appropriate support and interventions to address trauma-related challenges and promote positive health outcomes.

What Are the Benefits of Facing Past Traumas in the Present?

Being the beneficiary of support and treatment for past traumas can be dramatically helpful (eg, reducing the adverse effects on physical and mental health [such as depression, PTSD, problematic substance use and loneliness, obesity, and inflammatory bowel diseases]).[18,89,90] For example, in a study of middle-aged and older adults, investigators identified that individuals with more feelings of mastery over their lives demonstrated greater resilience against the adverse health effects of trauma.[44] Treating trauma-related illness can provide patients with insight on the connection between prior experiences and current medical and psychological disorders. This insight offers opportunities for trauma-exposed patients to address the role that trauma has played in their lives, increasing their agency to make helpful health decisions and foster mastery over their lives. For older adults, unaddressed

sequelae of trauma exposure (eg, depression, hypertension, obesity, diabetes, excessive alcohol consumption, and low social contact) become risk factors for cognitive decline.[91] Fortunately, each of these conditions is modifiable, and those who address them may be able to mitigate the multiple risk factors for poor cognitive health later in life. Thus, from a medical perspective, addressing and treating trauma can have preventive benefits that help reduce patients' risk for adverse health outcomes.

What Happened to Ms X?

After undergoing a successful operation, Ms X was discharged from the hospital to complete her recovery at home. As part of her discharge instructions, she received information about mental health services in her area. A few weeks later, she began treatment with a mental health counselor in her community who helped her to better understand how traumatic experiences early in life can lead to enduring symptoms of anxiety, depression, or posttraumatic stress across the lifespan. Ms X engaged in a 12-week, evidence-based trauma treatment that alleviated many of her trauma-related mental health symptoms.

CONCLUSION

Traumatic experiences occur throughout the lifespan; unfortunately, even when they were experienced early in life, they may continue to impede physical and emotional functioning. Moreover, the impact of childhood trauma is "dose-dependent," with the severity of adverse outcomes being dependent upon the type, frequency, and severity of traumatic events.

Patients with a history of trauma may experience heightened anxiety and fear when faced with medical settings, examinations, or treatments; these distressing feelings can interfere with patients' ability to provide accurate medical information, discuss their concerns with their provider, and follow treatment recommendations. When the principles of TIC are used to guide providers' behavior, patients are more likely to feel safe, empowered, and respected and are thus more likely to collaboratively engage in their care.

In instances where trauma-related disorders contribute to clinical distress and/or functional impairments in older adults, a range of psychotherapeutic and psychopharmacologic treatments have demonstrated efficacy in managing these conditions.

Article Information

Published Online: April 23, 2024. https://doi.org/10.4088/PCC.23f03643

Submitted: September 14, 2023; accepted December 18, 2023.

To Cite: Popescu D, Mellen E, Ander I, et al. Caring for traumatized elders: lessons learned from trauma-informed care. *Prim Care Companion CNS Disord*. 2024;26(2):23f03643.

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Relevant Financial Relationships: Dr Vyas has received research support from Nestlé Purina PetCare Company, Mars Edge, and American Foundation for Suicide Prevention. All other authors report no conflicts of interest related to the subject of this article.

Funding/Support: None.

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