Rowan University

Rowan Digital Works

Families and Friends of Homicide Victims' Experiences With the Healthcare System: A Trauma-Informed Perspective

Jeanna Mastrocinque
Rowan University

R.S. Martino

Wanda Foglia
Rowan University

P. Navratil

J. Metzger

See next page for additional authors

Recommended Citation

Mastrocinque JM, Martino RS, Foglia W, Navratil P, Metzger J, Cerceo EA. Families and Friends of Homicide Victims' Experiences With the Healthcare System: A Trauma-Informed Perspective. Journal of Primary Care & Community Health. 2023;14. doi:10.1177/21501319231162482

Authors

Jeanna Mastrocinque, R.S. Martino, Wanda Foglia, P. Navratil, J. Metzger, and E. A. Cerceo

Original Research

Families and Friends of Homicide Victims' Experiences With the Healthcare System: A Trauma-Informed Perspective

Jeanna M. Mastrocinque[1] [iD], Regina S. Martino[1,2], Wanda Foglia[1], Peter Navratil[3], Jed Metzger[4], and Elizabeth A. Cerceo[5]

Abstract

Introduction: Families and friends of homicide victims (FFHV) interact with healthcare systems almost immediately after the traumatic event. Their interactions with healthcare providers can either facilitate healing, have a neutral effect, or compound an already painful experience. When trauma victims are admitted to the hospital, resources are necessarily diverted on their behalf with less consistent attention paid to their families and friends. The interactions surrounding the immediate circumstance as well as experiences in the weeks to months after can have significant long-term impact. This study explores the needs and experiences of FFHV when interacting with the healthcare system to inform physicians' and providers' interactions and provision of services.
Methods: This study of 3 focus groups sought to understand these experiences with the healthcare system to better inform physicians' and providers' interactions and provision of services.
Results: Using the framework approach, the study ultimately built upon the existing trauma-informed care (TIC) framework to include several emergent themes. Participants discussed the need for death notification sensitivity, benefits of coordinated care, barriers to accessing care, the need for physician empathy and attention, the lack of trauma screening, and hastily prescribing medications.
Conclusion: This TIC approach can inform future healthcare interactions with the FFHV as it grounds the patients' experience in their historical reality and may improve future provider-patient relationship.

Keywords

homicide, families and friends of homicide victims, trauma-informed care, physician-patient interactions, empathy, survivor

Dates received: 30 December 2022; revised: 19 February 2023; accepted: 21 February 2023.

Introduction

In the aftermath of a murder, families and friends of homicide victims (FFHV) are secondary victims, exposed to immense trauma which often manifests as physical and psychological health consequences.[1] As the victim's needs take precedence, families and friends often melt into the background of the event and the medical response to it. However, the immediate impact can have long-standing consequences to the FFHVs' physical and psychological health and wellbeing.[1-6]

Emerging research provides a biochemical basis for effects of trauma on patients including alterations in the functioning of the limbic system and of endogenous opioid systems, hypothalamic-pituitary-adrenal axis changes involved in cortisol secretion, and neurotransmitter-regulated dysfunction of the parasympathetic and sympathetic nervous systems.[7-11] Trauma significantly contributes to impacts from adverse childhood experiences (ACEs), allostatic load, and chronic health conditions.[12-14] "Common physical disorders and symptoms include somatic complaints; sleep disturbances; gastrointestinal, cardiovascular,

[1]Rowan University, Glassboro, NJ, USA
[2]Immaculata University, Immaculata, PA, USA
[3]Tree of Hope Counseling, Rochester, NY, USA
[4]Nazareth College, Rochester, NY, USA
[5]Cooper Medical School of Rowan University, Camden, NJ, USA

Corresponding Author:
Jeanna M. Mastrocinque, Department of Law and Justice Studies, Rowan University, Campbell Library, 5th Floor, 201 Mullica Hill Road, Glassboro, NJ 08028, USA.
Email: mastrocinque@rowan.edu

neurological, musculoskeletal, respiratory, and dermatological disorders; urological problems; . . . substance use disorders;" (p.64)[11]; and somatization, prominent in this population, where emotional dysregulation is manifest in physical symptoms.[11,15-19]

Given the potential for exacerbating an already traumatic event, consideration to the unique needs of FFHVs requires a sensitive and nuanced approach. The importance of integrating compassion in all patient interactions is increasingly being recognized. Patients who receive compassionate, patient-centered care have been shown to have superior clinical outcomes, improved compliance with medication regimens, and lower healthcare costs whereas the lack of compassionate care is associated with increased medical errors and poor quality of care.[20,21] Compassionate patient care can decrease provider burnout and healthcare costs; for example, improved communication with patients can reduce diagnostic testing expenses.[22-24]

Using principles from trauma-informed care (TIC) models can provide a basis for understanding care delivery and optimal interactions. TIC refers to a systematic response to trauma, based upon the events, experiences, and lasting effects of trauma. While a wide array of trauma and trauma-specific interventions exist, SAMHSA developed 4 assumptions and 6 principles central to implementing care in a trauma-informed manner. The assumptions are that systems supporting those with traumatic events need to realize the impact; recognize the signs and symptoms; respond appropriately; and resist retraumatization.[25] These assumptions led to the 6 principles of Substance Abuse and Mental Health Services Administration's (SAMHSA) Trauma-Informed Care (TIC) used as the coding framework for this study: safety; culture, historical and gender issues; empowerment, voice, and choice; collaboration and mutuality; peer support and mutual self-help; and trustworthiness and transparency (p. 10) (Table 1).[25] Addressing the underlying needs of this unique population may render future delivery of care more successful.

Methods

This qualitative study explores the needs and experiences of FFHV when interacting with the healthcare system to inform physicians' and providers' interactions and the availability and provision of services. The study utilized focus groups which allowed for the reflection and discussion of individual and shared beliefs, opinions, and social realities.[26] This study used community-based participatory research, which aims to include community members, researchers, and organizational representatives in the research process.[27]

Participants

Participants self-selected in all focus groups, advertised through flyers distributed and publicly posted at health organizations, educational institutions, places of worship, and social service agencies as well as to community leaders.

All study participants met the inclusion criteria of being 18 years of age or older, having a family member or friend killed by homicide, and having an inactive case, defined as being adjudicated by means of a trial or plea or unsolved for at least 6 months with little to no investigative activity. Interested participants were provided a phone number to call and were screened for eligibility by a research team member. Eligible individuals selected 1 of 3 scheduled focus groups to attend.

The sample consisted of 11 participants in 3 focus groups held in NJ and PA in 2018. Most participants self-identified as female (n = 8) and the average age was 46.7 years old. Six participants self-identified as Black, 4 as Hispanic, and 1 as Other. Nearly half the participants were single (n = 5), with 3 each indicating they were divorced/separated or married/partnered. Most participants were employed full time outside the home (n = 8) and 3 were unemployed. One completed some high school, 2 graduated from high school or had a GED, 2 graduated from college, and 2 completed graduate or professional schooling.

Participants provided information about their loved ones who died. There were 12 victims as 1 participant had 2 loved ones killed. The victims were almost all male (n = 11) and mostly Black (n = 8). The race of the rest of the victims was identified as other. The average age of the victims was 26.5, and half the victims were children of the participants (n = 6). The remaining victims were identified as spouse/partner (n = 2), friend (n = 2), sibling (n = 1), and cousin (n = 1).

Rowan University's Institutional Review Board approved this study under IRB number Pro2018002311. The research team collaboratively created a field guide, to assist with data fidelity and to limit bias,[28] by group consensus and prepared for each focus group via conference calls and emails. The field guide included prompts to guide focus group discussions, which included asking participants to share about their loved one, the impact of the homicide on themselves and those around them, their experiences with various response systems and resources, and services that should be created to benefit FFHV.

The focus group facilitators were experts in the social work and criminal justice fields. Focus groups were held in secure, private locations, and participants were provided a $25.00 gift card. All focus groups were about 3 h and audiotaped. A third-party transcription service was engaged to transcribe all audio recordings.

Table 1. SAMSHA Principles.

SAMHSA principles	Participants' statements and experiences
Safety	Fear of perpetrators who were not caught or convicted
	State of FFHV after immediate event (walking home with "all this blood on me" or walking home alone)
	Physical responses of FFHV to notification (tachycardia, hyperventilation, pregnant women slumping down along a wall) ("She's at the wall and I go to grab her and she's slumping down with her and the baby, and I'm like 'Oh my gosh!'")
	Emotional responses to brevity of interactions with healthcare providers
	Retraumatization based on content of comments from healthcare providers
	Vulnerability with mental health providers when they disclose but then their session ends with unresolved emotions (being "right in the middle of" discussing trauma and told "see you next week or next month and they leave you hanging.")
	Safety was affirmed with persistent demonstrations of concern (". . .the fact he cared enough and kept pursuing me I eventually opened up to him.")
Trustworthiness and transparency	Lack of trust when healthcare providers appeared disingenuous ("They're just doing their job." or "That (counselor) doesn't care about you. They just went to school and they know a couple of things.")
	Fear of ulterior motives [FFHV was asked if she had "fantasies about killing (the person who killed her loved one). And I'm like I am never coming to see you again 'cause you don't understand."]
	Use of appropriate medical terminology (did not know what "expired" meant)
	Regular updates on the medical care of the victim were appreciated ("I felt good that they told me they were working on him.")
	Lack of knowledge of available services and support resources
	Lack of follow up after the event ("Somebody should be catering to these people in the waiting room. . .let them know what to expect. . .Because the wait part is what kills you.")
Peer support and mutual self-help	Great comfort from others with similar experiences (A co-worker the FFHV did not know well hugged the FFHV after learning of her loved one's death and the FFHV asked "how did you know to do that? And she said 'cause I lost someone too.'")
	Shared experiences increased empathy (". . ..somebody who has the education and all the alphabet behind their name is good. . .. But I need somebody who has either been through that situation, or they're empathetic and they don't use their letters to dictate our conversation.. . .")
	Harder to cope with loss without peer support (a FFHV who was estranged from family because of drug use noted "It was like I was non-existent. . . .everybody had my mom. . .. I didn't have nobody.")
	Returning to work increases peer support and serves as a distraction (as opposed to being home and replaying the trauma "like a movie.")
	Self-help techniques such as mindfulness meditation
Collaboration and mutuality	Provider collaboration ("My primary doctor, my psychiatrist. . .they all work together with me.")
	Need for healthcare providers to screen or ask about prior trauma ("If I don't state it, it's not asked." "it's almost like he doesn't want me to have any problems 'cause he doesn't know where to put it.")
	Need to not have healthcare providers "dictate the conversation"
	Difference in amount of time healthcare providers could spend with patients in urban versus suburban regions (A woman compared her experience in the city where she said "the doctor got 50 patients to see in 2 hours," with her experience in the suburbs where "(t)hey spent time with me. They sit there. They listen to me. And that is the way it should be.")
	Electronic medical record as barrier to empathic communication ("Technology has got in the way." "Now he's behind a computer and I'm over there. . .it's just very disconnected." "Wait. Did you just say that you said you lost your [loved one] and [physician] kept typing?" "It's almost like he doesn't want me to have any problems 'cause he doesn't know where to put it.")
	Desire that spiritual leaders should focus on listening, "let you do the talking," and being present rather than saying something interpreted as inappropriate ("they're in a better place.")
	Providing resource information, even if not used.

(continued)

Table 1. (continued)

SAMHSA principles	Participants' statements and experiences
Empowerment, voice, and choice	Differences in grieving (some wanted physical contact and others did not)
	Benefit of providing information, even if not used ("It would've helped to know that somebody cared. I mean the fact that nobody reached out to give us any information. It made it us against them.")
	Need for different treatment approaches to grief (One physician was quick to prescribe medication without "being sure what I [patient] had" and expressed concerns that she didn't want to be a "guinea pig.")
	Differences in FFHV's interest in seeing their loved one's body ("cause one of my issues was I was in denial.")
	Comfort in religion (needing to stay "prayed up.")
Cultural, historical, and gender issues	Pervasive distrust of people in general in communities with high crime rates ("It's just something you learn growing up in the city. You just don't trust nobody.")
	High rates of violent crime provide constant reminders of personal loss ("across our nation. . .men and children, they're losing their fathers. We're losing our sons. . .daughters, husbands, wives. . . we're just tired of it.")
	Multigenerational violence ("I don't know not one single person who hasn't lost somebody."
	Societal acceptance of violence, especially for males, for conflict resolution
	Lack of role models for healthy conflict resolution
	Distrust of police and school systems
	Lack of confidence in hospitals and the healthcare system
	Differences in grieving among men and women. (Male participant said "all my emotions changed. It's hard for me to get in touch with my emotions. . .I'm not a real emotional person now." "Men really don't grieve openly like women do and he didn't fare well.")
	Nontraditional family arrangements complicate the grieving process (needing the victim's biological family member to put the FFHV's name "on the list" at the hospital because not legally or biologically related to the victim.)

Data Analysis

The research team read transcriptions of the focus group audiotapes to ensure accuracy and confidentiality of each participant. The research team members who analyzed the transcripts provided a variety of perspectives including academics and practitioners in mental health, medicine, victimology, social work, and law. Absent a team member who screened participants for eligibility, no member of the analysis team had prior interactions with participants.

The framework approach is a systematic qualitative method appropriate for multi-disciplinary qualitative health research.[29] Research team members first engaged in the familiarization step of the framework approach by identifying common themes from the focus groups.[30] After discussing the themes, the team members identified which themes were iconic of SAMHSA TIC framework.[25] (Table 1) SAMHSA provides detailed definitions of these themes that the researchers used when coding. As a summary: safety refers to physical and psychological safety; trustworthiness and transparency refers to working with transparency and the goal of trust building; peer support and mutual self-help seek to establish safety, hope, trust, collaboration, and to use one's experience to promote healing; collaboration and mutuality stresses that relationships level power dynamics;

empowerment, voice, and choice relates to building upon individuals' strengths and experiences and supporting "shared decision-making, choice, and goal setting"; cultural, historical, and gender issues includes recognizing historical trauma, moving past stereotypes, and incorporating responses that meet individuals' cultural, racial, and ethnic needs (p. 11).[11]

Consistent with the emergent nature of qualitative research[31] and utility in using methodological approaches that answer research questions and address aims in a useful manner,[28] this study built upon the existing TIC framework by adding several additional themes that emerged in the findings: institutional trauma, re-traumatization, symptomatology, effect on family unit, coping, judgment, and learned helplessness.

The research team members then individually coded the transcripts by hand using the modified TIC framework, referred to as the "indexing" data analysis stage in the framework approach,[30] and then conducted several team conference calls in 2019 to analyze the transcripts and for coding consensus based on the framework. While there are various computer programs available for qualitative research, some researchers may prefer not to use such software to develop a more intimate knowledge of their data.[30] The inter-rater reliability ranged from 0.97 to 1.00 on the

various themes. After 3 focus groups, the research team came to a consensus that we had met saturation, with no new themes emerging, and therefore collectively decided not to hold additional focus groups.

Results

Within the SAMHSA TIC framework,[25] participants stressed the importance of sensitivity during death notification, the benefits of coordinated care, and barriers to accessing care. There also were issues relating to interactions with healthcare providers, including rushing, sensitivity, and not giving patients their full attention, as well as lack of screening for trauma, hastily prescribing medications, and failure to follow up. Many participants expressed concerns relating to trust (Table 1).

While many of the themes aligned with the SAMHSA framework,[25] others required unique categorization, necessitating the creation of 7 new categories: institutional trauma, retraumatization, symptomatology (mental and physical), effect on the family unit, coping (both effective and ineffective), learned helplessness, and judgment (Table 2).

Discussion

It is estimated that, for every homicide death that occurs, 3 to 10 loved ones are impacted, roughly translating to 64,000 to 213,000 people annually in the United States.[32-34] 9% to 18% of the U.S. population are impacted by a loved one's homicide during their lifetime with marginalized and disadvantaged communities, especially Black and Latinx communities, experiencing more violence and homicides.[2,33-35] There are myriad health consequences for FFHV[1-6,33] including: increased suicide ideation for immediate family members[2]; 23.3% of immediate family members developing homicide related PTSD, which is over 3 times higher than the general population[2,33]; and prolonged or complicated grief, including 23% of adult FFHV experiencing this 2 years after the homicide of their loved one.[33,36,37]

Given the health consequences of homicide on families and friends, interactions with the medical community may have a long-term impact on FFHV. Limited research exists exploring the experiences of FFHV with healthcare providers and, to our knowledge, no study to date has done research with this population regarding a TIC framework. This study emphasizes the myriad ways in which experiencing the homicide of a loved one can permeate one's health and/or behavioral health and impact one's perceptions of interactions with the health system. It also suggests opportunities within these initial interactions to improve communication and potentially ameliorate long-term consequences. It is important to note that patients who are FFHV may have already experienced negative interactions

with various response systems, institutional traumas, and socioeconomic barriers in their post-homicide journey. Awareness of this potential history should inform patient interactions. Empathy and psychoeducation about the effects of trauma would greatly benefit the interactions with FFHV. A trauma-informed approach emphasizing practitioner training on how trauma affects human beings, screening for trauma, appropriately responding to trauma, and providing appropriate resource information is key in these physician-patient interactions as is evidence-based training.[38]

Common themes raised by participants that are relevant for healthcare providers include the limited amount of time per visit and often feeling rushed within that timeframe. Demonstrations of empathy seen as facilitating a healthy provider-patient relationship included not looking at the computer, acknowledging the homicide, repeatedly showing concern, and sharing resources, even if not used. Health professionals who were caring toward patients, actively listened, and expressed empathy and sensitivity to the patient's needs were all of paramount importance. This is particularly relevant given individuals' various responses to tragedy specifically around the amount of desired contact, both physical and emotional. Additionally, given that FFHV often noted feeling alone, isolated, and without resources or support, communication of support resources is a tangible and feasible intervention that hospitals and providers can offer.

Support groups and peers were noted to provide great comfort especially when members included other FFHV and members from the same community as the individual. Linking individuals with peer support can be especially valuable as some felt more distant and less at ease with healthcare professionals. Peer support may also be beneficial in overcoming isolation and generating greater levels of self-efficacy, empowerment, and engagement. Peers may be able to form a stronger therapeutic bond because they have dealt with the same struggles themselves. The mutual exchange of coping strategies is another important aspect of the peer-to-peer community.

Interactions that failed to acknowledge the homicide or threatened one's psychological safety, to the extent the patient felt retraumatized, undermine trust in service providers and led to deterioration of that relationship. More globally, clinicians need to be sensitive to the pervasive distrust in communities of high violence toward both people in general and social institutions that have not always served their interests. Participants who noted having experienced institutional trauma in interacting with various response systems often discussed an "us versus them" or "streets against the system" mentality. While much of the institutional distrust is focused on the police and schools, some expressed cynicism about hospitals and physicians. Building a therapeutic relationship with FFHV must start

Table 2. Additional Themes Identified in This Study.

Additional themes	Participants' statements and experiences
Institutional trauma	Applies to health, criminal justice, educational, and religious systems
	System response was interpreted to reflect a larger concern about what one participant labeled as a "streets against the system" relationship
	Feelings of being undervalued (police leaving a breathing gunshot victim for "five, six min before he died" because "they had to wait for somebody else to come," or feeling unsolved cases could have been solved, but were not prioritized)
	Sense that law enforcement treated their loved one like a "crime scene" at the hospital (A FFHV wanted to hold their loved one but they were behind glass)
	Interactions with healthcare providers lacking in empathy, including constantly writing or using computers without eye contact or actively listening
	Lack of information ("It would've helped to know that somebody cared. . .the fact that nobody reached out to give us any information, it made it us against them.")
Retraumatization	Insensitive comments by spiritual leaders (They did not want to hear "they're in a better place," or have scriptures read to them.)
	Circumstances surrounding death scene (seeing autopsy pictures, hearing lurid details of the death).
	How responders were or were not attending to their loved one
	Spouses of veterans noted the event exacerbated veterans' PTSD
Symptomatology (mental and physical)	Depression, guilt, being "in a deep hole and you can't get out."
	Post-traumatic stress disorder
	Substance abuse ("anything to take the pain away.")
	Suicidal ideation
	Shortness of breath
	Chest pain/tightness
Effect on family unit	Nontraditional family arrangements sometimes complicate the grieving process (access to seeing the victim in the hospital because they were not "on the list," inability to have input over burial decisions, limited financial support due to not having a legal relationship, blood relatives without an active relationship did not feel the "right" to grieve.)
	Guilt among parents over not being a better parent
	Mothers expressed the need to stay strong for their other children
	Children, even when very young, would not share their own feelings, not wanting their family members to "hurt anymore than [they were] already hurting."
	Children would misbehave in school ("cause there are kids, teens that lost a parent or brother, sister, they start acting out and it's really not because they're bad children or bad kids. It's because they're going through something.")
	Children were also negatively impacted by school or community events requiring, or commonly involving, a loved one's attendance
Coping (effective and ineffective)	Repression common among caregivers ("I had to just put my big girl pants on. . .I'm a mom now and my feelings really didn't matter at that time.")
	Surviving children being angry, anxiously attached to surviving family members, and socially withdrawn
	Avoidance by substance abuse to "escape the feeling."
	Vigils and commemorating events for the loved ones
	Support groups, counseling, this focus group
	Involvement in social action initiatives
Judgment	Shared experiences reduce judgment (". . .we all share something in common. So if I want to scream and holler won't anybody look at me strange . . . because we all share the same thing and we're allowed to do whatever we want to do and we won't be judged. Nobody won't ask us, 'You still mourning your [loved one]?'")
	Victim blaming
	Clergy sometimes discussed victim in judgmental terms during funeral
	Insensitive healthcare provider inquiries ("Why was he killed?")
Learned helplessness	Heavily tied to socioeconomic barriers, including the lack of occupational opportunities, even with an education, and the pervasive issues of drug dealing and gun violence in communities
	Lack of empowerment ("didn't know how to ask for help" and "if your family lets you down, how can you expect anybody else to help you?")

One of the SAMHSA[25] assumptions is to resist retraumatization. The 2 additional emergent themes of institutional trauma and retraumatization from participants' stories illustrate the myriad ways and multisystem levels in which participants' trauma experiences occur and need to be addressed.

with acknowledging the cultural and historical context of interactions and making continued efforts to support patients, even when resources are turned down the first time they are offered.[2,33]

In working with FFHV, providers must also not assume that a biological connection dictates a relationship nor that nontraditional family arrangements do not represent a significant bond since hearts and minds are not bound by blood relations. This research suggests that providers should continually engage our patients in conversations regarding past trauma, even if they are not immediately forthcoming, and should not minimize the often long-term impact of a traumatic event on an individual. Study participants recognized they had physical symptoms such as problems sleeping and eating, shortness of breath or chest tightness, and mental health conditions, such as depression and PTSD, directly related to the event.[33] However, other chronic conditions such as diabetes or hypertension, which can be related to chronic stress and allostatic load, were not consciously associated with the event. Thus, many more conditions may be exacerbated by the stress of the homicide. While the FFHV who participated in this study were particularly open and motivated to share their experiences and health consequences in the hopes of helping others, many other FFHV may not readily identify the connection between current health problems and prior trauma and open, sensitive dialog to continually engage them may be needed.

Additional individual level concerns were discussed, including variation in response to homicide based on gender, differing effects on the family unit, and coping techniques. Gender was shown to modify the manifestations of grief and was reflected in the effects on the family unit. Mothers commonly repressed sorrow to avoid unduly burdening their children with their grief. Children, even if very young, would suppress their emotional responses at home but then misbehaved in school, which was underappreciated as being associated with the homicide. Men also were noted to repress sorrow, finding stoicism, anger, or violent reactions as more culturally acceptable than grief. Other coping techniques differed among individuals. Support groups were seen more positively than counseling which was sometimes viewed as a sign of weakness. Many participants felt that attending the focus group was therapeutic in hoping to make a difference and in sharing their stories with others who had a similar experience. Many participants also felt it fulfilling to become advocates for change.

While limitations included a small sample size, the participants' stories and experiences reflected consistent themes across the focus groups and the sample size is consistent with similar studies.[39-43] The sample size allowed for a robust in-depth analysis of the shared experience of the homicide of a loved one, with saturation of themes reached with the 11 participants. The information provided is dependent on victim recall, a concern in such focus group studies;

however, it is not uncommon for FFHV to clearly remember events with detail.[44] Even if not all details were recalled, the depth and detail of those recounted provided a rich, valuable picture of their experience. Although the generalizability of these findings is limited, the themes observed should be relevant for many FFHV as participants were from urban neighborhoods, which have higher homicide rates and most of the victims were young black males, a group disproportionately likely to be victims of homicide across the country.[33,45] In addition, given the limited research in this area, the study provides a foundation for further replication.

Research should continue to explore evidence-based approaches in clinical settings on different communication styles and resource allocation both at the time of the event and in subsequent follow up. Such evidence should be incorporated into medical education and clinical practice. Those resources confirmed to be most efficacious should be codified and supported by policy decisions and budgetary allocations. Specific risks of vulnerable sub-populations should be assessed relative to the broader population and should include economic as well as physical health.

Conclusion

Given the number of people affected by homicide, this study highlights some of the health issues that FFHV are experiencing that physicians and providers may not be aware of. Training in TIC may make healthcare providers more comfortable in asking about the trauma and can provide physicians with tools to effectively unpack and appropriately refer patients in the limited time they have. While there is much to prioritize in the physician-patient interaction, appropriately assessing trauma can potentially result in: a decrease in unnecessary testing, an improved patient relationship, more effective diagnoses and referrals, and better patient compliance with treatment plans.

ORCID iD

Jeanna M. Mastrocinque https://orcid.org/0000-0001-7229-5993

References

1. Satcher D. Violence as a public health issue. *Bull N Y Acad Med*. 1995;72:46-56.

2. Amick-McMullan A, Kilpatrick DG, Resnick HS. Homicide as a risk factor for PTSD among surviving family members. *Behav Modif*. 1991;15:545-559. doi:10.1177/01454455910154005

3. King K. It hurts so bad: comparing grieving patterns of the families of murder victims with those of families of death row inmates. *Crim Justice Policy Rev*. 2004;15(2):193-211.

4. Kristensen P, Weisæth L, Heir T. Bereavement and mental health after sudden and violent losses: a review. *Psychiatry*. 2012;75(1):76-97. doi:10.1521/psyc.2012.75.1.76

5. van Denderen M, de Keijser J, Kleen M, Boelen PA. Psychopathology among homicidally bereaved individuals: a systematic review. *Trauma Violence Abuse*. 2015;16(1):70-80. doi:10.1177/1524838013515757

6. Zakarian RJ, McDevitt-Murphy ME, Bellet BW, Neimeyer RA, Burke LA. Relations among meaning making, PTSD, and complicated grief following homicide loss. *J Loss Trauma*. 2019;24(3):279-291.

7. Heim C, Mletzko T, Purselle D, Musselman DL, Nemeroff CB. The dexamethasone/corticotropin-releasing factor test in men with major depression: role of childhood trauma. *Biol Psychiatry*. 2008;63:398-405. doi:10.1016/j.biopsych.2007.07.002

8. Heim C, Newport DJ, Mletzko T, Miller AH, Nemeroff CB. The link between childhood trauma and depression: insights from HPA axis studies in humans. *Psychoneuroendocrinology*. 2008;33:693-710. doi:10.1016/j.psyneuen.2008.03.008

9. Meaney MJ, Brake W, Gratton A. Environmental regulation of the development of mesolimbic dopamine systems: a neurobiological mechanism for vulnerability to drug abuse? *Psychoneuroendocrinology*. 2002;27:127-138. doi:10.1016/s0306-4530(01)00040-3

10. Teicher MH. Scars that won't heal: the neurobiology of child abuse. *Sci Am*. 2002;286:68-75. doi:10.1038/scientificamerican0302-68

11. Substance Abuse and Mental Health Services Administration. *Trauma-Informed Care in Behavioral Health Services. Chapter 3. Understanding the Impact of Trauma*. Treatment Improvement Protocol (TIP) Series, No. 57. Substance Abuse and Mental Health Services Administration; 2014. Accessed February 7, 2023. https://www.ncbi.nlm.nih.gov/books/NBK207201/pdf/Bookshelf_NBK207201.pdf

12. Anda RF, Felitti VJ, Bremner JD, et al. The enduring effects of abuse and related adverse experiences in childhood. A convergence of evidence from neurobiology and epidemiology. *Eur Arch Psychiatry Clin Neurosci*. 2006;256:174-186. doi:10.1007/s00406-005-0624-4

13. Centers for Disease Control and Prevention. *Publications by Health Outcome: Adverse Childhood Experiences (ACE) Study*. Centers for Disease Control and Prevention; 2012. Accessed July 21, 2019. https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/index.html

14. Danese A, McEwen BS. Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiol Behav*. 2012;106:29-39. doi:10.1016/j.physbeh.2011.08.019

15. Hargreaves KM. Neuroendocrine markers of stress. *Anesth Prog*. 1990;37(2-3):99-105.

16. Herman JP, Figueiredo H, Mueller NK, et al. Central mechanisms of stress integration: hierarchical circuitry controlling hypothalamo-pituitary-adrenocortical responsiveness. *Front Neuroendocrinol*. 2003;24(3):151-180.

17. Keynejad RC, Frodl T, Kanaan R, Pariante C, Reuber M, Nicholson TR. Stress and functional neurological disorders: mechanistic insights. *J Neurol Neurosurg Psychiatry*. 2019;90(7):813-821. doi:10.1136/jnnp-2018-318297

18. Steptoe A, Kivimäki M. Stress and cardiovascular disease. *Nat Rev Cardiol*. 2012;9(6):360-370. doi:10.1038/nrcardio.2012.45

19. Dimsdale JE. Psychological stress and cardiovascular disease. *J Am Coll Cardiol*. 2008;51(13):1237-1246. doi:10.1016/j.jacc.2007.12.024

20. West CP, Huschka MM, Novotny PJ, et al. Association of perceived medical errors with resident distress and empathy: a prospective longitudinal study. *JAMA*. 2006;296:1071-1078. doi:10.1001/jama.296.9.1071

21. Trzeciak S, Mazzarelli A. *Compassionomics: The Revolutionary Science Evidence That Caring Makes a Difference*. Studer Group; 2019.

22. Epstein RM, Franks P, Shields CG, et al. Patient-centered communication and diagnostic testing. *Ann Fam Med*. 2005;3:415-421. doi:10.1370/afm.348

23. Patel S, Pelletier-Bui A, Smith S, et al. Curricula and methods for physician compassion training: protocol for a systematic review. *BMJ Open*. 2018;8:e024320. doi:10.1136/bmjopen-2018-024320

24. Thomas MR, Dyrbye LN, Huntington JL, et al. How do distress and well-being relate to medical student empathy? A multicenter study. *J Gen Intern Med*. 2007;22:177-183. doi:10.1007/s11606-006-0039-6

25. Substance Abuse and Mental Health Services Administration. *SAMHSA's Concept of Trauma and Guidance for a Trauma-Informed Approach*. SAMHSA; 2014. Accessed February 7, 2023. https://store.samhsa.gov/system/files/sma14-4884.pdf

26. McLafferty I. Focus group interviews as a data collecting strategy. *J Adv Nurs*. 2004;48:187-194. doi:10.1111/j.1365-2648.2004.03186.x

27. Israel BA, Schulz AJ, Parker EA, Becker AB. Community-based participatory research: Policy recommendations for promoting a partnership approach in health research. *Educ Health*. 2001;14:182-197. doi:10.1080/13576280110051055

28. Levitt HM, Bamberg M, Creswell JW, Frost DM, Josselson R, Suárez-Orozco C. Journal article reporting standards for

qualitative primary, qualitative meta-analytic, and mixed methods research in psychology: the APA Publications and Communications Board task force report. *Am Psychol*. 2018; 73(1):26-46. doi:10.1037/amp0000151

29. Gale NK, Heath G, Cameron E, Rashid S, Redwood S. Using the framework method for the analysis of qualitative data in multi-disciplinary health research. *BMC Med Res Methodol*. 2013;13(1):1-8. doi:10.1186/1471-2288-13-117

30. Pope C, Ziebland S, Mays N. Qualitative research in health care: analysing qualitative data. *BMJ*. 2000;320(7227): 114-116. doi:10.1136/bmj.320.7227.114

31. Creswell JW. *Qualitative Inquiry & Research Design: Choosing Among Five Approaches*, 3rd ed. SAGE; 2013.

32. Vincent NJ, McCormack J, Johnson S. A comprehensive conceptual program model for supporting families surviving a homicide victim. *Child Adolesc Social Work J*. 2015;32(1): 57-64.

33. Bastomski S, Duane M. *Research Brief: Homicide Co-Victimization*. Center for Victim Research. July 2018. NCJ Number 251953. Accessed February 7, 2023. https://victim research.org/documents/hcv-research-brieffinal.pdf

34. Hitchens B (2022, July 26). *Second killings: The Black women and girls left behind to grieve America's growing gun violence crisis*. Rockefeller Institute of Government. Accessed February 7, 2023. https://rockinst.org/blog/second-killings-the-black-women-and-girls-left-behind-to-grieve-americas-growinggun-violence-crisis/

35. Rheingold AA, Zinzow H, Hawkins A, Saunders BE, Kilpatrick DG. Prevalence and mental health outcomes of homicide survivors in a representative US sample of adolescents: data from the 2005 National Survey of Adolescents. *J Child Psychol Psychiatry*. 2012;53(6): 687-694.

36. Rheingold AA, Williams JL. Survivors of homicide: mental health outcomes, social support, and service use among a community-based sample. *Violence Vict*. 2015;30(5):870-883.

37. Kersting A, Brähler E, Glaesmer H, Wagner B. Prevalence of complicated grief in a representative population-based sample. *J Affect Disord*. 2011;131(1-3):339-343.

38. Federal Bureau of Investigation & Penn State University. We regret to inform you. . .. n.d. Washington, DC. Accessed February 7, 2023.

39. Bruinsma S, Rietjens J, van der Heide A. Palliative sedation: a focus group study on the experiences of relatives. *J Palliat Med*. 2013;16(4):349-355. doi:10.1089/jpm.2012.0410

40. Englebrecht C, Mason DT, Adams MJ. The experiences of homicide victims' families with the criminal justice system: an exploratory study. *Violence Vict*. 2014;29(3):407-421. doi:10.1891/0886-6708.vv-d-12-00151

41. Hartwell S, Allison J, Jones B, et al. Feasibility and acceptability of mindfulness for survivors of homicide and their providers. *Explore*. 2018;14(1):66-75. doi:10.1016/j.explore. 2017.04.021

42. Mastrocinque JM, Metzger JW, Madeira J, et al. I'm still left here with the pain: exploring the health consequences of homicide on families and friends. *Homicide Stud*. 2015;19: 326-349. doi:10.1177/1088767914537494

43. Sharpe TL, Boyas J. We fall down: the African American experience of coping with the homicide of a loved one. *J Black Stud*. 2011;42(6):855-873. doi:10.1177/0021934710377613

44. Skogan WG. Measurement problems in official and survey crime rates. *J Crim Justice*. 1975;3:17-31. doi:10.1016/0047-2352(75)90096-3

45. Federal Bureau of Investigation. Crime in the United States. 2019. Updated 2020. Accessed February 7, 2023. https://ucr.fbi.gov/crime-in-the-u.s/2019/crime-in-the-u.s.-2019