

# In the Aftermath of a Shooting Trauma: Application of Family Informed Trauma Treatment

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## Abstract

This article illustrates the trauma of an active shooting event and the traumatic impact it had on a survivor and his family. While the survivor had presented with PTSD symptomatology, the family also began to manifest signs of secondary trauma. In conjunction with brief individual therapy for symptom management, family therapy was employed to assist the entire system which had become complicit in maintaining a trauma-informed homeostasis. Employing a case analysis, the authors provide a step-by-step deconstruction of how the family-informed trauma treatment model (FITT) informed direct practice with this family. The authors report on the specific family interventions that were used to facilitate post-traumatic growth and resiliency in the emotional aftermath of trauma exposure.

*Keywords: Family trauma treatment; Secondary trauma; Family therapy*

## 1. Introduction

When one has experienced a trauma (single event), how are loved ones typically affected? What guides a trauma clinician in the therapeutic response to the family? The individual may be forever changed; partners, parents and siblings often experience adverse physical and emotional effects that are similar to those experienced by the survivor who has been violated. The family may serve as a resource for support or an obstacle that blocks a traumatized member's path to recovery [1]. Families may become "trauma-organized systems" [2], with emotional and behavioral patterns primarily centered around the traumatic experience of the survivor, manifesting on a family system level between parents, between parent and child and between siblings. Utilizing the case-study model, the authors illustrate the application of a family-centered, trauma informed

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model to a family deeply affected by a single event trauma. The survivor in this case survived a local mass shooting. The current knowledge base regarding trauma transmission within families is reviewed and a case application is provided, illustrating how Family Informed Trauma Treatment (FITT) was effectively employed with a family reeling from their father's exposure to an active shooter event.

## **2. Literature Review**

### **2.1 Trauma**

According to van der Kolk [3], a noted expert in the field of trauma, trauma by definition "is the result of exposure to an inescapably stressful event that overwhelms the person's coping mechanisms." Trauma may be acute (a one-time experience, such as being saved from a burning building) or chronic (repeated sexual abuse). Although most researchers agree that trauma inherently includes an experience of loss, not all loss is traumatic [4].

### **2.2 Indirect trauma**

The psychotherapy field has recognized through clinical experience and empirical studies that traumatic events affect not only the individual who experiences the trauma, but also others who have significant relationships with the trauma survivor. According to the DSM-5 [5], persons may be indirectly exposed to traumatic events by witnessing an event as it occurs, learning that a close friend or relative has experienced a traumatic event, and/or hearing about the details of a traumatic event.

Indirect trauma reactions have been referred to in the literature as secondary traumatic stress, vicarious trauma and compassion fatigue, at times with these terms used interchangeably, to explain the response individuals may experience through professional work with survivors of trauma [4, 6-10]. Initially undertaken to understand the impact of indirect trauma exposure on the worker, research has expanded to include the effects of indirect trauma on family, caregivers, close friends and community members. Secondary traumatic stress can explain the phenomenon of how a therapist or family member may begin to experience physical and psychological manifestations of trauma through indirect exposure from direct contact with survivors who have shared their traumatic experiences and aftermath [1,8,9]. Vicarious trauma refers to the major shift in one's thinking and worldview, related to safety, trust and how they perceive the world around them [11,12].

### **2.3 Intergenerational trauma transmission**

(ITT) can occur over numerous generations. After an individual has experienced profound levels of trauma, intense anxiety can be detected by those that are the emotionally closest to them; often their family members, creating high emotional reactivity and a shared sense of trauma [13-16]. Steinberg [17] characterizes this dynamic as the free-floating overflow of trauma injuries circulated with adult partners (horizontal transmission) and felt deeply by their children (vertical trauma transmission).

### **2.4 Posttraumatic stress disorder**

The DSM-5 [5] breaks down the symptoms of a response to trauma into four clusters: A) re-experiencing (nightmares, intrusive recollections), B) avoidance (attempts to avoid a thought or feeling related to the traumatic event), C) negative

alterations in cognition and mood (dissociation from memories of the event, feelings of detachment from others, distorted sense of self-blame, marked loss of interest in activities), D) arousal (hypervigilance to others, heightened startle response, aggressive and/or self-destructive behaviors).

Both the type of event and the intensity of exposure, whether direct or indirect, impact the degree to which an event contributes in posttraumatic stress disorder (PTSD). For example, in one study of a fatal sniper attack that occurred at an elementary school, proximity to the shooting was directly related to the percentage of children who developed PTSD [18]. Of those children who directly witnessed the shooting on the playground, 77% had moderate to severe PTSD symptoms, whereas 67% of those in the school building at the time and only 26% of the children who had gone home for the day had moderate or severe symptoms [18].

In addition to exposure variables, other risk factors for PTSD include: female gender, previous trauma exposure, preexisting psychiatric disorders, parental psychopathology, and low social support [19]. If one or more parents has manifested significant signs of PTSD themselves, children and adolescents will become more vulnerable to developing trauma and stress reactions [19,20]. How the family copes with trauma exposure will provide some protective forces or the contrary; increase the child's risk for developing their own set of subthreshold PTSD or PTSD symptomatology.

## **2.5 Single episode violent trauma**

Mass violence such as active shooter episodes, contribute to greater levels of PTSD than other single event traumas such as a car accident [21]. Active shooter episodes are described as events when one or more persons intentionally tries to kill more than one person, in a setting in which there are several unrelated persons, and which results in at least one unrelated person being victimized [22-24]. Research conducted by the FBI and Texas State University found that active shooter episodes increased annually between 2000 and 2013 [22]. With the increase in active shooter events, as well as excessive media coverage of mass violence and persons having increased access to social media outlets, there is evidence of heightened rates of indirect trauma exposure [24,25].

Studies indicate varying outcomes for individuals following episodes of mass violence. For example, incidents of single episode violence such as mass shootings have led survivors, responders, and bystanders to develop PTSD with prevalence rates of 11.7% -64%, with up to 95% of survivors demonstrating some symptoms of PTSD [25-28]. Following the Oklahoma City bombing, North, Pfefferbaum, Kawasaki, Lee and Spitznagel [29] found that seven years following the event, almost two-thirds of survivors with PTSD still experienced symptoms.

Wusik and Jones [30] conducted a case study related to the active shooter episode at Virginia Tech, highlighting elements of this single event trauma through an act of violence occurring in a public space among a community in which the student held membership. The student's functioning four years following the event continued to be disrupted, despite the student not being directly exposed, having no prior individual or family history of mental illness or treatment, and no prior trauma exposure to note [30]. Heightened incidence in active shooter episodes, indirect trauma exposure among the general population and the indirect effect on family members and close friends of persons directly exposed has brought attention to this significant social

issue [31]. Combined with statistics indicating that 30% of all firearms privately owned worldwide belong to U.S. residents, active shooter episodes present a significant public health issue [32].

Other studies have found that positive changes may result in the aftermath of episodes of mass violence [33]. For example, among members of a school community ( $n=359$ ) in which a campus shooting occurred, Vieselmeier, Holguin and Mezulis, [34] found that in the aftermath of the traumatic event, protective mechanisms of gratitude and resilience served as a buffer to facilitate posttraumatic growth.

Moreover, studies indicate a significant determinant of how individuals fair in the aftermath of a traumatic event is meaning-making related to survival [21,31]. How persons reconcile the traumatic event after their belief system and worldview are challenged often influences the amount of distress encountered. If the event significantly disrupts their core assumptions, negotiating the discrepancy between the interpreted traumatic event and one's previously held worldview can lead to distress [21,31,35]. Studies have found that indirect exposure to traumatic events may lead to posttraumatic stress among family members or friends [24,36]. For example, it was found that Virginia Tech students at the time of the 2007 shootings indirectly exposed to trauma through loss of a teacher, friend or significant other during the active shooter event had high levels of PTSD [36].

Over the past two decades, traumatic stress experts have become increasingly aware of the need for effective psychological interventions immediately after mass trauma events to reduce distress and minimize the likelihood of long-term symptoms [37]. However, there is little published research on how, specifically, to respond to the long-term health needs of families using a family-centered approach [38]. After the inclusion of indirect exposure in criterion A of the DSM-5 [5] for PTSD, there is a need for mental health practitioners working with survivors and their families to understand the systematic aftermath of both direct and indirect trauma exposure and to increase competence in family-centered treatment where indicated.

## **2.6 Family therapy with trauma**

Family system theories derived initially from the cybernetic principles suggesting that all parts of a system are interconnected, which means that changes in one part of the system will bring about changes in all other parts of the system, affecting the system in a recursive manner [39,40]. The family is the context in which most survivors of trauma are relieved of their negative effects associated with traumatic events. There is a systemic solution to helping the traumatized. Family therapists are well positioned to be excellent trauma therapists [41]. Post-traumatic family therapy helps families change unproductive ways of relating that emerge during and following the traumatic event/crisis [1,42]. Family therapists must be trauma-informed so that they 'do no harm' during the treatment process.

Assessments should focus on both individual and interpersonal sequelae from trauma, including spousal and parent-child interactions, communication and other areas of family functioning. Identifying the repercussions from trauma on families is critical to prevent calcification of trauma-related familial interactive patterns. The basic premise of this theory is that the family is viewed as a system, in which all parts are interconnected and interrelated like a complex machine or biological organism [39,40,43,44]. Secondary traumatic stress research has investigated the effects of trauma in couple relationships and

within families [45,46]. Parents may be overwhelmed by the trauma and minimize the effects [47]. Risk factors contributing to developing trauma-related symptoms generally include prior individual or family psychiatric history, history of other previous traumas or adverse childhood experiences, severity/chronicity of traumatic experiences, conflictual or violent family interactions, and lack of social support [1].

## **2.7 Family informed trauma treatment (FITT)**

The model of family informed trauma treatment (FITT) was developed at the Family-Informed Trauma Treatment Center at the University of Maryland. Funded through the Substance Abuse and Mental Health Services Administration (SAMHSA) in partnership with the National Child Traumatic Stress Network, the FITT Center is a collaboration among Schools of Medicine and Social Work at the University of Maryland and the Family Center at Kennedy Krieger that focuses on offering evidence-based resources for mental health professionals working with families affected by trauma. While not strictly evidence-based, the FITT model is supported by the FITT Center as a trauma-informed *framework* for clinicians working with families impacted by trauma and is included in the professional toolkit disseminated nationally and locally. Thus, the FITT model can offer support and guidance to clinicians providing therapy to families affected by trauma.

Family responses to trauma are conceptualized in the FITT model through the fusion of nine theories, including family systems theory, attachment theory, conservation of resources theory, family resiliency theory, trauma theory, social learning theory, McMaster model of family functioning, conservation of resources theory and eco-developmental theory, which all contribute to understanding family dynamics in the aftermath of traumatic event exposure [1]. Highlighting the unique interplay of complex family systems and interdependent nature of families, the FITT model recognizes that family processes are multi-dimensional and heavily influenced by contextual factors such as race, class, poverty, community support, family structure and norms, and many other environmental factors [42]. In the aftermath of trauma, structured norms, power dynamics among the family and its subsystems, and the family's established style of coping may serve in part, as risk or protective factors, which determine resiliency and adaptation among its members [1,41]. Pre-existing family dynamics may also serve *simultaneously as both a risk and a protective norm* and each clinician has to evaluate from a strengths perspective how to encourage dynamics that express resiliency and assist the family to minimize the maladaptive responses to trauma that can rigidify into trauma-organized family dynamics [38,48].

The FITT model offers a trauma-informed, trauma-responsive framework for clinicians working with families impacted by trauma. Through convergent theoretical knowledge about family system processes, traumatic events and stressors, individual (adult and the child) reactions to trauma exposure, coping, posttraumatic growth and resiliency, the FITT model focuses assessment and intervention on the family's unique needs and strengths in order to aid in recovery [41, [fittcenter.umaryland.edu](http://fittcenter.umaryland.edu)]. The clinician's attunement to contextual factors affecting the family system and commitment to exploring transactional effects of the traumatic event on the family are critical components of family-informed trauma-treatment.

Tuning in to the complex nature of how trauma may potentially impact families, the FITT model marries key trauma-informed principles and family informed practices. Major principles for family informed practice in the FITT model include mobilizing resources within the family and the family's existing support system; collaborating with the family and engaging

family members in mutual decision-making; and engaging the family in services aligned with their unique needs. Trauma-informed guidelines incorporated into the FITT model include fostering safety for members of the family; offering psychoeducation about individual and family system responses to trauma, including complex reactions, resiliency and posttraumatic growth; assessing and managing exposure to stressors impacting family systems, specifically attending to the family's traumatic context; harnessing protective factors and strengths related to family culture and spirituality that aid in recovery to buffer against presenting risks and reduce adverse reactions, and finally; attending to the family's needs subsequent to their engagement in trauma work with practitioners and social service systems ([fittcenter.umaryland.edu](http://fittcenter.umaryland.edu)).

Although the FITT model was developed with families enduring chronic stressors residing in urban poverty, families are also vulnerable to the effects of a traumatic event experienced in the larger community [1,41,42]. The FITT model was chosen as a research-supported framework for working with the family illustrated in the case study below due to the contextual stressors impeding the functioning of individual members and the entire family after one member was exposed to a traumatic event. Following traumatic event exposure, the client sought help for difficulties managing symptoms of posttraumatic stress, which he shared were also significantly impacting his wife, children and their family functioning as a system. The authors offer this case application as contribution toward building practice-based evidence of the FITT model.

### **3. Case Illustration**

The case study illustrated below consisted of 12 hourly sessions in total; six individual and six family sessions with one two-month follow-up, all with the same therapist. Confidentiality has been ensured about the following case study as the client history, family dynamics, presentation and treatment have been duly de-identified without altering the essence of the clinical dynamics. Because this case study was not part of an experimental research study, there are no pre- or post-test assessments or outcomes.

Richie, a 39-year-old Jamaican-American husband and father of two, came into therapy one year after being a witness and survivor to an active shooting at his place of employment in an urban medical center. He had been stepping out of his office and into the hallway of a large urban medical center, when he heard shots and saw several of his colleagues shot and wounded on the floor. The facility was responding to an "active shooter" and the loud speaker and the emergency police, fire and SWAT forces put the entire facility in "lockdown" while they searched for the shooter. Richie had spent 90 minutes alone hiding in a bathroom, terrified for his life. The shooter took his own life as police closed in on him.

In his intake session, Richie reported that his family had no significant pre-morbid mental health, trauma or substance abuse issues prior to this shooting event. In engagement and ongoing assessment, he expanded on his response, noting that immigrating as an 11-year-old from Jamaica to NYC, to live with his alcoholic mother, was in fact, somewhat traumatic. He had not wanted to come to the states, but his grandmother who had been his caretaker had become incapacitated by a stroke. The loss of his beloved and nurturing grandmother, his home and way of life, and forced and precarious adjustment to his mother who was unpredictable, providing an insecure attachment at best, created subthreshold PTSD symptoms which disturbed his level of functioning at that time. These symptoms included; panic attacks, hypervigilance, a swing between re-experiencing his loss and dislocation, and dissociation from his memories and loss. He reported that these emotional patterns ameliorated as he became acculturated to his school and neighborhood and had not re-emerged since. This history provides

critical information about Richie's emotional blueprint, significantly marked by traumatic separation, feelings of loss and emotional disequilibrium.

As engagement and assessment continued, issues of cultural sensitivity were addressed between therapist and client. For example, in order to engage in culturally grounded practice, the therapist offered space for the client to inform her about the impact of culture as it related to the presenting problem, as well as engaged in open dialogue related to acknowledgement of cultural differences to explore any potential barriers or concerns. Given his pre-occupation with his trauma symptoms, the issue of client-worker cultural differences presented no obstacles. Nor were there any unique issues due to client's race, culture or religion. The chief cultural issue was the trauma of immigration, which was examined and validated throughout the therapy.

On intake, Richie presented as hyper vigilant, highly anxious, had developed a panic disorder marked by claustrophobia and agoraphobia. He reported intrusive flashbacks, agitation, and avoidance of travel, small rooms, large rooms, difficulty sleeping and a sense of a foreshortened life.

He also shared that he had been able to keep his job, but at times is crippled with fear while commuting to and from work and has intense nightmares and preoccupations with worry for his wife and children. The family had responded with high levels of anxiety and concern about his wellbeing and safety. The entire family remained at a heightened sense of vulnerability and danger and are unable to move towards trauma recovery.

He reported that his wife has become more withdrawn, depressed and fretful. He had difficulty speaking with her about his memories and emotions, because she "doesn't want to me to get myself upset." He complained that the marriage feels strained and distant, as did his relationship with the children and even between the children.

His two adolescent children include his 14-year-old daughter having nightmares and withdrawing from academic and social activities, and his 16-year-old son who has developed separation anxiety and has become worried about his father. Interestingly his 16-year-old son had decided not to go away to college because he was that concerned about leaving his dad; a premonition that some harm would come to him while he was away. The children have also been very agitated and at times, verbally aggressive with one another. The family had become trauma-organized around Richie's untreated PTSD, sharing and manifesting the impact of Richie's trauma. Richie's family manifested hypervigilance, avoidance, high emotional reactivity within the traumatic context; an anxious family consumed by anticipatory anxiety and disturbed emotional and functional interactions.

As Richie improved from brief cognitive trauma therapy and EMDR on an individual basis, the family was brought in and seen for six family sessions; assessed and treated largely from the FITT Model. In initial phases of joining the family and understanding the trauma response, there were four areas of assessment and reflection.

### **3.1 FITT assessment stage**

1. Identified and reflected disturbances in the family unit (FITT)

2. Identified reciprocal distress reactions
3. Identified individual distress
4. Lapses in basic family functioning (FITT)

Over preliminary sessions, it was evident that Richie's PTSD had two simultaneous planes of disruption; himself and his family. Initial individual assessment included psychoeducation of trauma, and typical PTSD reactions, feelings, thoughts and behavior. As Richie learned that what he was feeling and thinking was an identifiable process that can respond well to trauma informed treatments, he was able to locate an effective EMDR therapist (Identified individual distress). Through six EMDR sessions individually, he continued to seek individual supportive therapy which began to shift from his disequilibrium, to his concern about his family's level of distress.

Once Richie was able to talk without fear of a panic attack, he was helped to more fully understand his history of previous traumas that may have been triggered to worsen the after-effects of this event. With gentle sustainment, empathy, normalization and a family-centered line of inquiry, it became evident that each family member, each subsystem (spousal, subsystem, parental) and the family unit as a whole, was deeply affected by the trauma reactions of their husband/father (identified and reflected disturbances in the family unit). Cybernetically, the more anxious he became, the more regressed the family members became. In fact, as they became on high alert, they were feeding into and intensifying (identified reciprocal distress reactions). Richie explained that the family emotional functioning suffered as there was increasing conflict and withdrawal, work, school and social patterns became unpredictable and chaotic (lapses in basic family functioning). The next section highlights the interventions applied to Richie and his family based on the FITT model.

### **3.2 Interventions stage**

1. Family adaptation to and acceptance of traumatic circumstances
2. Shifted from Individual alone to family-centered locus of problem
3. Counseled from a solution-focused/problem-problem-solving approach
4. Assisted them with developing higher tolerance (feeling but acting less on traumatic content and affect)
5. Encouraged open, effective communication
6. More flexible emotional roles
7. More structure & predictability
8. More efficient resource utilization

Self-efficacy [1]. Richie's family was invited into therapy to: a) help support Richie's recovery, and b) help the entire family to better understand his trauma and adapt to a more functional homeostasis as a unit. Within those broad goals, initial interventions included helping Richie's family gain a better understanding and appreciation of Richie's emotional state after the traumatic event so that they could respond more adaptively. This was done by allowing Richie to debrief about his preliminary trauma responses as well as how he started to improve. The family was helped to reflect on how they had tried to adapt after Richie's "personality shift" and how that both helped Richie, but also seemed to now cause new areas of family dysfunction (*Family adaptation to and acceptance of traumatic circumstances and a shift from his problem to a family-centered locus of problem*).



As the therapist moved the focus from Richie's emotional reactions to the trauma to the family's emotional reactions to Richie's difficulties, the therapist was encouraging a family centered locus of the problem and locus of change (*family-centered*). The family was gently guided from their focus on complaints of the problems to the potential for solution-oriented work.

Therapist: Thank you for sharing how upset you've all been. It seems the whole family has suffered after this event. I'm wondering what attempts have been made towards improving how you all get along?

*Mom: We are just at our wits end. I don't think we know how to help him.*

*Therapist: Well, let's look at that as a team. Richie how do you think your family can be of help- and how can you help them?* (Counseled from a solution-focused/problem-solving approach).

With empathy, this feedback loop of emotions and behaviors were openly discussed. Richie and his family were able to understand that their emotional and behavioral responses to his trauma state had actually rigidified the prominence and impact of his trauma (FITT). While the family was encouraged to discuss the emotional impact of trauma, a distinction was delineated between how each family member felt vs. how they behaved. Here examples of FITT focus on helping the family to tolerate high affect, but act less on traumatic content and affect. An illustration of this follows:

*Son: Now I worry about him all the time. I'm afraid that his stress will result in something bad- like, a heart attack or a stroke. Think that's why I don't want to go away to college. I just want to be near in case the family needs me.*

*Therapist: Your father and your family have been through a very rough time, that's true. I can understand that you might feel that way after these past few weeks, but I'd also like to point out - that that's a feeling that is not yet caught up to that dad is starting to feel and do better. Can I suggest that as a family, no major decisions that don't have to be made right now, are made as you are still working this through?*

*(Assisted family with developing higher tolerance for affect)*

With very open and honest dialogue throughout, the next sessions continued to employ interventions from the FITT mode (encouraged open, effective communication). The family was asked to reflect on how both functional and emotional roles had shifted since Richie's trauma. They were able to see that they had moved from an equilibrium marked by healthy boundaries, to boundaries that would best be described as enmeshed. The high alert had pulled each family member and each subsystem into one another's emotional space in ways that did not encourage healthy and age-appropriate individual and differentiation in the adolescents, between mother and the adolescents and even, between the spouses.

The family was able to identify where and how they could try to return to a pre-trauma boundaries and relationship norms (*more flexible emotional roles*). As they attempted to return to more predictable roles, rules and boundaries, the anxiety and other areas of emotional conflict began to dissipate (re-introduction of predictability & structure). The FITT model was also

used to explain that by Richie seeking effective EMDR and family therapy treatment for his PTSD, he had modeled using resources and establishing an improved level of self-efficacy (*resource utilization & self-efficacy*).

## **4. Discussion**

### **4.1 Clinical implications**

While there are limitations to generalizability as this application of the FITT model is one case, there are several noteworthy implications. Mental health practitioners who adopt a systems perspective are in the best position to help the traumatized because of their special familiarity with interpersonal relationships; understanding how these relationships contribute to both causing and mitigating traumatic responses. Recognizing that families interact with mental health care services at various stages of readiness, the FITT model infuses a trauma-specific family systems approach to assessment, intervention and treatment planning to aid families in accessing to family and trauma-informed treatment.

When a parent in a family has experienced trauma, the parent-child relationship may compromise attachment as the parent withdraws due to preoccupation with the trauma reaction [49-51]. This can be described as the vertical intergenerational transmission of trauma as the child begins to sense vulnerability, danger, anxiety. As demonstrated in the above case, Richie's children were significantly impacted by his trauma response shifting their behavior to cope with their father's manifested traumatic reactions. Focusing on the family processes occurring in the family, which were impacted by all members' manifested trauma reactions, was necessary in order to empower the family towards healing individually and as a system.

Application of the FITT model to the case of Richie and his family prompts the clinician to focus on the context of family as well as where the traumatic event occurred. While the FITT model was developed with families exposed to chronic trauma in mind, the context for Richie and his family present significant implications in this case demonstrating a goodness of fit with this model.

During the single event shooting trauma, Richie experienced the direct loss of his colleagues and loss of safety within his community environment: his place of Richie reported difficulty functioning at work and his son feeling the need to stay home, retracting his initial desire to go away to college. Engaging the family in family informed trauma treatment facilitated reconnection to the community in allowing Richie to improve work functioning and sustain his employment, while reducing the traumatic stress level of Richie's family members to ensure continued community connection.

The likelihood of developing PTSD is higher for a surviving family of a mass shooter than the average prevalence of PTSD among trauma survivors as a whole [25]. The stages and signs of normal grief will likely not initially emerge due to the level of violence and shock surrounding the loss [36]. Exploring prior experiences of traumatic grief associated with immigration and the ambiguous loss of Richie's grandmother in this case helped to inform the clinician about the intersection of trauma with loss. This was necessary in order to assess the impact of Richie's grief reactions and manifested posttraumatic stress on cognitive processes and subsequent emotional dysregulation, as well as how these could be transmitted through family processes.

Children, adolescents, and adult family members can experience mild, moderate, or severe posttraumatic stress symptoms. After traumatic exposure, some people grow stronger and develop a new appreciation for life. Others may struggle with continuing trauma-related problems that disrupt functioning in many areas of their lives. Extended family relationships can offer sustaining resources in the form of family rituals and traditions, emotional support, and care giving. Some families who have had significant trauma across generations may experience current problems in functioning, and they risk transmitting the effects of trauma to the next generation [1]. Parent-child relationships have a central role in parents' and children's adjustment after trauma exposure. Protective, nurturing, and effective parental responses are positively associated with reduced symptoms in children. At the same time, parental stress, isolation, and burden can make parents less emotionally available to their children and less able to help them recover from trauma.

#### **4.2 Implications for future research**

Providers aware of the impact of trauma on family relationships and functioning can help members access supports and treatments that focus on all family members and work to stabilize the whole "family unit" [1]. While this paper highlights effective implementation of the FITT model with a case example of a family impacted one member's direct exposure to a traumatic event, further research is needed to demonstrate the efficacy of the FITT model. The Family-Informed Trauma-Treatment Center housed in the University of Maryland has made significant research contributions with the support of NCTSN, SAMHSA, and HHS in broadening the lens of trauma-informed services to include families [fittcenter.umaryland.edu, 42]. This is a significant development considering the historical focus on individuals in trauma treatment with limited research evaluating trauma-informed treatment with families [42,52].

Existing models of intervention for working with families impacted by trauma appear primarily focused on children and adolescents, with the priority being to inform practitioners regarding best practice interventions for working with youth exposed to different types of trauma and their families [38,53,54]. Examples include trauma focused interventions for children and parents with disrupted attachment [55] and interventions focusing on the parent-child dyad to address trauma-related behavioral difficulties among children and adolescents [38].

This paper's case application of the FITT model suggests future research continue to evaluate evidence-based family models of treatment for adult trauma survivors who have directly and/or indirectly transmitted trauma reactions to their offspring. That the family in this case study self-reported improved family functioning with progress in managing posttraumatic stress symptoms among individual members indicates the potential for resiliency and posttraumatic growth (PTG) after therapeutic engagement informed by the FITT model. Existing studies have explored PTG among families after exposure to natural disasters, surviving terminal illness of family members, and following initial episodes of psychosis [56], as well as PTG among individuals surviving active shooter events [34,57], however studies exploring PTG among families after active shooter events appear limited. This reinforces future research examine the potential relationship among implementation of the FITT model with families recovering from trauma exposure such as active shooter events in order to evaluate PTG among families and inform family therapists about evidence-based interventions for facilitating PTG.

Although the FITT model was specifically developed to inform work with families living in urban poverty exposed to chronic trauma, the case example offered in this paper widens the knowledge and skill base in detailing the effective

application of FITT core principles with an urban family impacted by a single traumatic event related to an active shooter event. This suggests that future research is warranted to evaluate the effectiveness of FITT in practice with families living not only in urban poverty but the varied environments and potentially traumatic events that families are exposed to as they grow through the life cycle. In particular, given the increased frequency of traumatic events in communities combined with social media access and exposure, there appears to be a greater need for family-informed trauma-treatment. Evaluating the effectiveness of the FITT model across families of different cultures, locations and families who have been exposed to different traumatic events can serve to inform practitioners working with all survivors of trauma.

## 5. Conclusion

As indicated, families are unique, complex systems; they are constantly in flux, as they experience the developmental processes of individual members and the system as a whole. In order to be effective practitioners, when working with survivors of trauma, knowledge demonstrates that trauma-informed interventions and systems are the most advantageous for meeting survivors' unique needs and supporting recovery. To this end, family systems could be conceptualized as a trauma-informed, responsive system. However, without the appropriate resources and tools, the potential for the family system and its members to thrive in the face of adversity is limited.

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