Trauma-Informed Care in High Stress Environments: Scope, Challenges and Future Directions

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ABSTRACT

Trauma is an intense form of stress characterized by overwhelming experiences accompanied with lack of safely, agency and helplessness when exposed to significant perilous event or series of events (either real or perceived). Unhealed traumas may result in re-traumatization, triggering memories of the past trauma resulting in reliving trauma all over again in the present moment as if it is happening now. Further, potential risk for re-traumatization increases with trauma survivors’ exposure to high stress environments. Globally the individuals, communities and societies exposure to traumatic stress is quite common causing horrendous impact on biopsychosocial and spiritual domains across life and generations. As a result, to foster basic needs of safety, connection and regulation among the trauma survivors in non-clinic settings, Trauma-informed care (TIC) is framed with basic assumption to ‘do no harm’ through re-traumatization, ensured by means of psychoeducation and training for service providers. However, fulfilling these assumptions rely on effective implementation and improvisation of TIC over the period of time across various contexts and levels. Therefore, in this chapter authors discuss the scope of TIC, challenges in its implementation and offer future recommendations.

Keywords—trauma; re-traumatisation; safety, healing, trauma-informed care; scope; challenges; future directions

**I. INTRODUCTION**

Globally the individuals, communities and societies exposure to traumatic stress is quite common causing prolonged horrendous impact on biopsychosocial and spiritual domains across life and generations. In contemporary societies, lifetime prevalence of potential traumatic events among the individuals accounts to 80.7% [1]. Chronic trauma robs the survivor of human freedom [2], limiting their response flexibility [3], a sense of power and control [4].

**A. Trauma and re-traumatisation**

Trauma is an intense form of stress characterized by overwhelming experiences accompanied with lack of safely, agency and helplessness when exposed to significant perilous event or series of events (either real or perceived). The trauma overwhelms the mind and brain’s capacity to cope effectively. Trauma at different stages of development has different impact on development and maturation of mind and brain. As a result, the traumatised individuals live altogether in different universe both psychologically (how their brain perceives the surroundings) and somatically or physiologically (how their body/organism perceive the world [5, 6].

Trauma is not a fact (an event that happened once in the past), indeed it is reliving the overwhelming maladaptive traumatic stress responses for the past traumatic event in the present moment, as if it is happening right now. This process of reliving trauma is called as re-traumatisation. It implies that the survivors of trauma experience the trauma over again when triggered by any overgeneralised stimuli that is perceived in the present context. Re-traumatisation amongst the trauma survivors continues until they find safe environment with secure attachments and healthy boundaries with others or gain control over life through trauma healing. Further, potential risk for re-traumatization increases with trauma survivors’ exposure to high stress environments.

**B. Types of Traumas**

Psychological traumas are categorised into three basic types i.e., acute trauma, chronic trauma and complex trauma, based on the exposure and impact of traumatic stress on the individuals. *Acute Trauma:* The individual’s exposure to a single intense dangerous or life-threatening stress associated with an overwhelming experience of vulnerability of safety and emotional dysregulation which result in certain degree of loss of agency is called acute trauma. Examples of acute trauma include, sexual assault, road accident, violence by shooting, pandemic, and natural disaster etc. Acute trauma can develop into Acute Stress Disorder which usually transpires within a month of exposure to a traumatic stressor. *Chronic Trauma:* The individual’s recurrent and prolonged exposure to intensely threatening event resulting in maladaptive overwhelming experience which has a potential impact over long duration is called chronic trauma. Exposure to physical abuse, emotional/verbal abuse, domestic violence etc. are examples of chronic trauma. *Complex Trauma:* The complex psychological trauma defined as resulting from exposure to severe stressors that are repetitive or prolonged; involve harm or abandonment by caregivers or other ostensibly responsible adults, and; occur at developmentally vulnerable times in the victim's life, such as early childhood or adolescence. Complex posttraumatic sequelae are the changes in mind, emotions, body, and relationships experienced following complex psychological trauma, including severe problems with dissociation, emotion dysregulation, somatic distress, or relational or spiritual alienation [7]. Van der Kolk [5] describes complex trauma as “the experience of multiple, chronic and prolonged, developmentally adverse traumatic events, most often of an interpersonal nature...and early life onset”. Further, the nature of traumas (as presented in Table 1) depends upon the source of traumatic event with respect to the different contexts across the life of an individual.

**Table 1: Nature of Trauma and sources[[1]](#footnote-1)**

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| **Nature of Trauma** | **Sources/Triggers/Causes/Events** |
| Attachment trauma | Early childhood neglect, impaired care giving, loss of beloved ones, physical or emotional neglect, multiple attachment/relationship disruptions etc. |
| Interpersonal/Developmental Trauma | Adverse childhood experiences such as rape, emotional/verbal/sexual abuse, intimate partner/significant other violence, bullying etc. |
| Significant event trauma | Financial loss, losing job, being homeless, failure in life goals/exam etc. |
| Medical/Physical trauma | Disability due to terminal illness, improper diagnostics, anaesthesia and surgery, reproductive pain due to child birth, road /industrial accidents etc. |
| Collective trauma | Historical, institutional & intergenerational slavery, oppression, discrimination and genocide, prejudice and sexism, terrorism and war etc. |
| Vicarious trauma | Exposures to others traumas by caregivers or service providers, trauma experienced indirectly |
| Environmental trauma | Natural disasters like floods, cyclones, tsunami, draughts, earthquakes, landslides, flashfires, climate change, pandemic etc. |

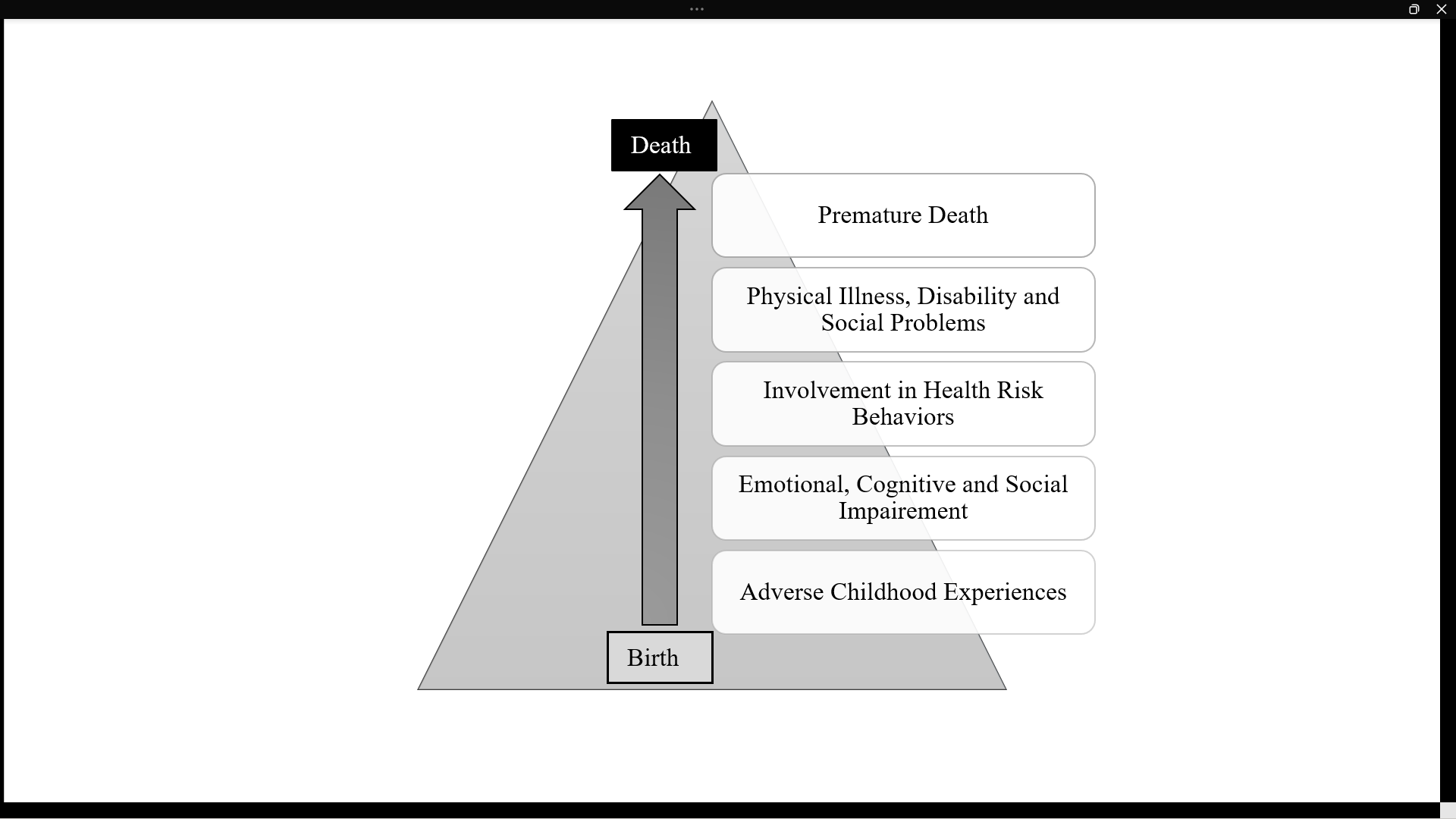
**II. PREVALENCE AND IMPACT OF TRAUMA**

**A. Prevalence of Trauma**

In contemporary societies, lifetime prevalence of potential traumatic events among the individuals accounts to 80.7% [1]. About 70% of them experience one or more traumatic stressors across their lifespan [9]. Chronic trauma robs the survivor of human freedom [2], limiting their response flexibility [3], a sense of power and control [4].

**B. Adverse Childhood Experiences (ACEs)**

Adversity in childhood is highly prevalent across the societies and cultures. According to a study[10] in US, about 60 percent of the individuals experience minimum one ACE and about 21 percent experience more than three adversities across the life span. Moreover, socially and economically disadvantaged individuals experience more adversities than others. Similarly in Indian context, adversities such early childhood neglect (70.6%), suffering physical abuse (68.9%), surviving sexual abuse (53%), experiencing emotional abuse (48.4%) are highly prevalent [11]. Study of ACE [12] found multiple adversities experienced by adolescents and young adult age groups in India. Substance use, negative gender stereotypes, early sexual relationships, violent behaviour and suicidality were associated health risk behaviours among them. Boys who had three or more ACEs were twice at risk of early sexual relationships in comparison to girls who were thirteen time at risk for same frequency of adversities. Boys (34.11%) were high likely to indulge in substance use than girls (6.65%) and hold more negative gender attitudes. The prevalence of sexual abuse and suicidal thoughts was higher among girls (6.2%, 5.05% respectively) than boys (1.67%, 2.19% respectively) whereas boys (58.94%) survived physical abuse more compared to girls (35.91%).



**Figure 1: Impact of adverse childhood experiences across lifespan[[2]](#footnote-2)**

The historic findings of ACE study reveal that a heightened exposure to unsafe and insecure psychosocial and physical environment during early stages of child development contribute as risk factors towards hampered mental health (sedentary behaviour, depression, suicidality, drug abuse and alcoholism) and physical health (obesity, skeletal fractures; cardio-vascular, respiratory and liver diseases) leading to decreased life span and premature mortality [11], as depicted in Figure 1. Since ACEs are quite prevalent across the societies and they have significant long-term influence on health status, potential health risk behaviours which further contribute deleteriously to disease and mortality, prophylactic measures at various levels such as primary, secondary and tertiary are required [13]. These measures contribute towards prevention of ACEs and health risk behaviours, promotion of healthy behaviours while facilitating modification of risky behaviours as a result enhance quality of life and wellbeing among the adults with ACEs. Though in general, there has been perilous impact of childhood adversities reported on health and wellbeing across life-span of an individual, all adversities are not equal in their impact[14], and the protective factors available or facilitated across the life-span (i.e., from childhood to old age) equally play pivotal role in buffering the negative impact of the ACEs [15].

**C. Dysregulated Physiological System and Acute Traumatic Stress Reactions**

A healthy nervous system detects both the cues of safety as well as danger from the environment. On the contrary, traumatised individuals’ nervous system becomes conditioned to sense predominantly the cues of danger and threat alone. Traumatic stress responses (fight/flight/freeze) are basic survival mechanisms mobilised by the brain stem (survival brain) when encountered with real threat or danger in the immediate environment. Upon extinction of the treat or danger stimuli in the environment, sympathetic NS perceives safety as a result the parasympathetic nervous system initiates the process of restoration of stress response to normal level (called homeostasis). Frequent unrestored traumatic stress responses over time becomes maladaptive which in turn aborts natural homeostasis even for non-threatening or dangerous stimulus. Such chronic maladaptive traumatic stress response has severe impact on individuals flourishing in life across personal, social, professional and spiritual domains.

**D. Window of tolerance and New Normal of Chronic Hypervigilance and Hypovigilance**

Window of tolerance term coined by Dan Siegel [16]. and it has developed as a concept [17]. Currently, it is extensively used in trauma-focused therapy, education and training and it has become a framework to explore and understand psychological and physiological responses to various stressors in everyday life including the triggers of past traumatic stress experiences. Window of tolerance model proposes three zones of arousal that every individual possesses, one within the window of tolerance i.e., optimal arousal zone and two zones outside the window of tolerance i.e., hyperactivation (also called hypervigilance) and hypoactivation (also called hypovigilance). The optimal zone of arousal within the window of tolerance facilitates the individuals to sense safety and agency in face of stressful events and challenges of everyday life as a result enhances effective management of distress. However, the experience of trauma narrows down the window of tolerance giving scope for the outer zones hyperactivation and hypoactivation to widen. When an individual experiences overwhelming reaction (of hyperarousal or hypoarousal) to the intense stress, it becomes highly challenging to access repertoire of resources and strategies to manage the distress. The individuals can re-enter and expand the window of tolerance as they regain the sense of safety, agency and connection with self (by mindful regular reflection and regulation of arousal on model of window of tolerance with active engagement in trauma-informed self-care practices), others and environment (when it is safe and secure).

**E. High Stress Environments and Risk of Re-traumatisation**

Respectful and caring approach is crucial in any human services delivery. High stress environments such as childcare care centres, schools, health care settings, community care centres, sports and fitness training centres, rehabilitation centres, military and police organisations, and criminal justice system etc. high likely to contribute for stress and burnout among the service providers [18]. Irritability, anxiety and lack of attention and ineffective coping mechanisms are quite common among the individuals who experience distress or burnout due to the organisational commitments and demands. The dysregulated psychological needs and physiological systems of survivors condition their nervous system to selectively perceives danger cues from the environment while failing to neurocept safety cues. Therefore, experience of high stress and burnout symptoms among service providers becomes hindrance in fostering safe, compassionate and regulated environment for the survivors of trauma as a result pose risk for re-traumatisation.

**III. ROAD TO TRAUMA-INFORMED CARE**

**A. Limitations of Healing Trauma inside the Clinical Settings**

Chronic maladaptive coping mechanisms employed as a defence against intruding and pervasive overwhelming experiences among the survivors of trauma disrupt them in the way their mind and bodies perceive the surroundings and the world. Considering severe impact of the trauma on individuals’ body, brain and spirit, during past three decades there has been exponential growth in development of trauma-focused therapeutic interventions such as somatic experiencing, sensory motor psychotherapy, EMDR, Internal Family Systems, Poly Vagal Theory etc. towards effective treatment and healing survivors of trauma. However, professional training in these interventions demands years of formal education and training under expert supervision.

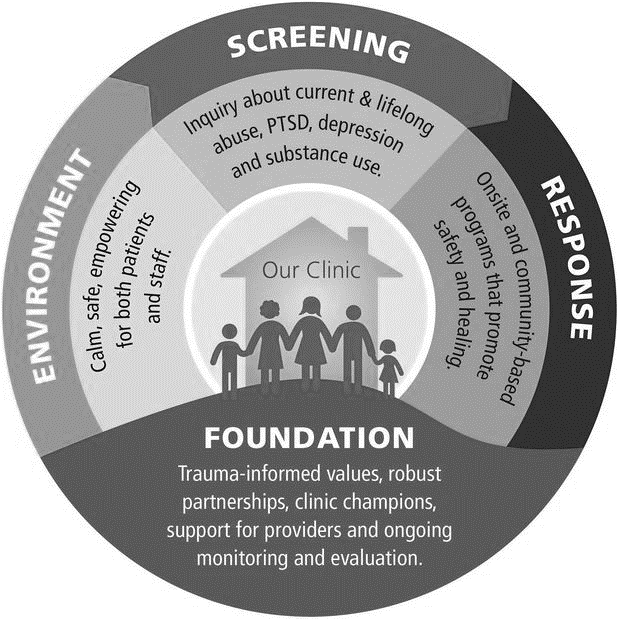
**B. Trauma Healing outside the Clinical Settings: Role of Ecological Model**

Researchers [19] explored the pathways of healing of survivors of trauma in various contexts outside the clinical setting. Harvey [20] proposed a multidimensional definition for trauma healing. The definition states “the efficacy of trauma-focused interventions depends on the degree to which they enhance the person-community relationship and achieve "ecological fit" within individually varied recovery contexts”. Further, this conceptualisation of trauma healing incorporates ecological model [21] and proposes that addressing trauma at the context of traumatisation (such as home, communities, society, culture and politics etc) by recognising traumatic experiences among the survivors of trauma may foster healing without any clinical interventions. Effectiveness of such healing process enhances with presence of crucial enabling factors such as immediate reactions (by the care givers or first responders), active support associated with awareness and understandings by significant other individuals and groups involved, and their attitudes and behaviours towards the trauma survivors in the recovery context [19, 20].

Traumatisation prevalent not only among the service seekers but also experienced by service providers or caregivers which may aggravate potential risk for re-traumatisation [22]. As a result, along with experience of vicarious trauma due to chronic exposure to traumatic experiences of survivors among service providers, their personal history of traumatic experiences may get compound in employee working environment [23, 24]. It is specifically true for high stress environments where organisational demands and expectations adds on stress across the organisational system ranging from service providers, service delivery, human care and outcomes. Recognition of the challenges faced by both service seekers and providers sets foundation for trauma-informed measures to address the concerns of re-traumatisation and vicarious trauma while optimising satisfaction and outcomes in human service collaboration [25].

**C. Trauma-Informed Care (TIC)**

To foster basic needs of safety, connection and regulation among the trauma survivors in non-clinic settings (by adopting ecological model), TIC framework is developed with basic assumption to ‘do no harm’ through re-traumatisation, ensured by means of psychoeducation and training for service providers. Based on the context and need, researchers conceptualised different definitions of TIC. TIC is a care approach in which services are organised to ensure that all staff have a basic understanding of the potential impact of traumatic stress and can amend care to promote safety, choice, autonomy, collaboration, and respect. Staff in TIC settings are not necessarily expected to treat the symptoms of trauma, but pathways for care recipients to access treatments for trauma are known and used by all staff [26]. Another comprehensive definition of TIC states “A program, organization, or system that is trauma-informed realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively resist re-traumatization” [27]. TIC provides clients more opportunities to engage in services that reflect a compassionate perspective of their presenting problems. TIC can potentially provide a greater sense of safety for clients who have histories of trauma and a platform for preventing more serious consequences of traumatic stress [28]. The effective implementation of TIC in various contexts for vulnerable individuals and population can provide necessary needs of survivors of trauma, and alleviate hindrances to human health care and health disparities prevalent among them [29]. The basic practices of TIC collaboration with external agencies are presented in Figure 2.

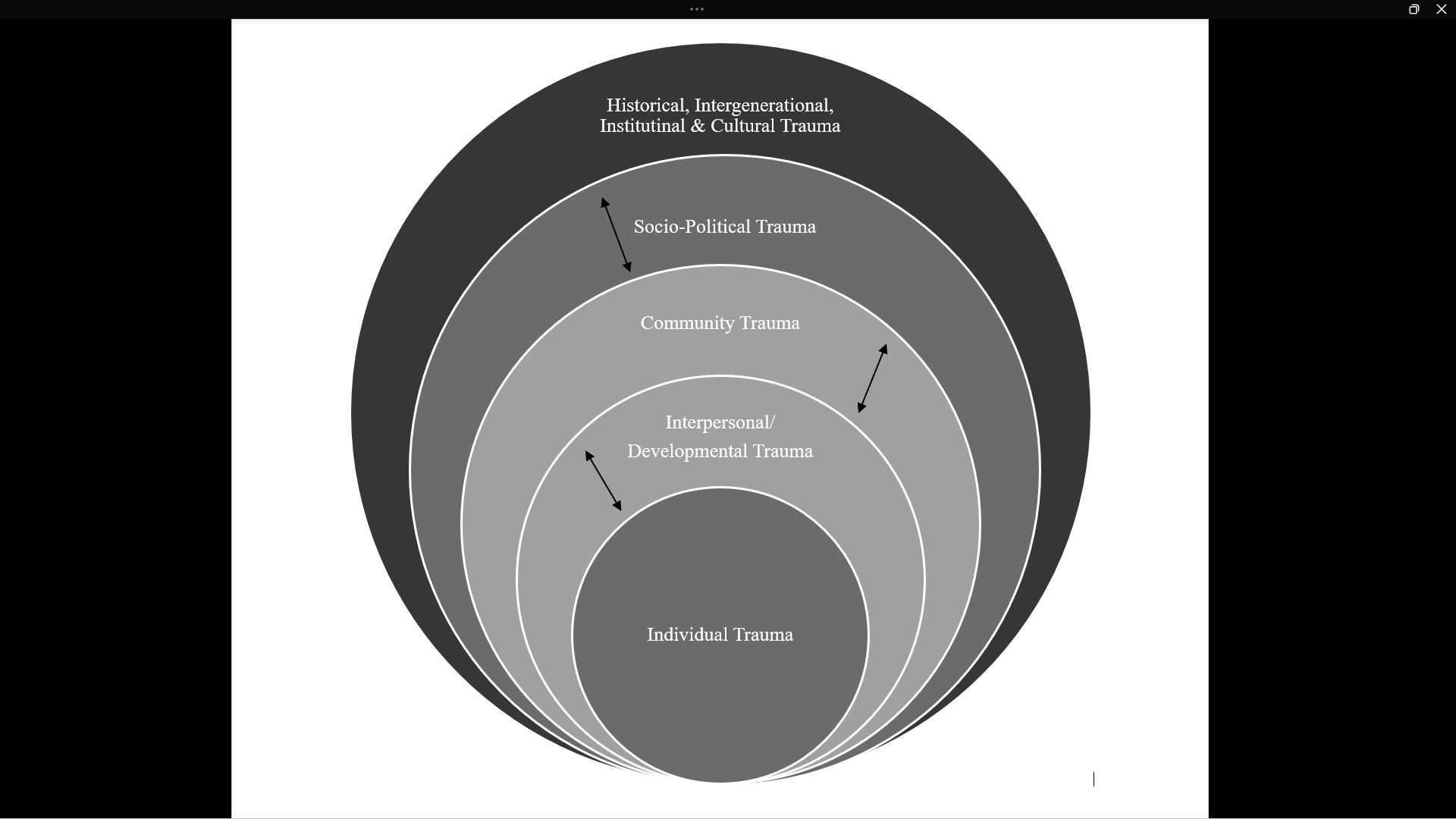


**Figure 2: TIC practices & collaboration with agencies[[3]](#footnote-3)**

**IV. SCOPE OF TRAUMA-INFORMED CARE**

**A. Contexts and Levels of Trauma-Informed Care**

During the individual’s lifetime, potential risk factors of psychological trauma can source from various contexts and levels (as displayed in Figure 3). According to Seigel [30], human beings are IntraConnected, with self, others, society and nature. In a broader perspective he unveils individual human mind and experiences to be beyond the brain and body which form basis for the environment (social and natural), we live in. As a result, individuals share not only the happiness and wellbeing but also the burden of trauma and re-traumatisation through bidirectional interaction between the survivors of trauma and significant others involved (either directly or indirectly) in various contexts and levels of the nature and society. Implementing TIC at multiple contexts and levels has better outcomes and satisfaction for both the service seekers and service providers.



**Figure 3: Contexts and levels of trauma with bidirectional interaction[[4]](#footnote-4)**

**A.** **Out of** **Home Care: Connecting, Loving, Living, and Thriving**

Out of home contexts, child day care and welfare centres, are extensions of early care-giving system of attachment, safety and regulation. As nervous system of the child during early childhood is most vulnerable for trauma when basic needs of safety, love and care are not met. Therefore, early childhood development (emotional, cognitive and social) is highly dependent on early care-giving systems of attachment embodied with warmth and connection. Childhood adversities significantly influence contexts of care-giving systems which has a potential to affects the children even at out of home contexts, child day care and welfare centres [31]. However, despite adversities in early stages of development, children are not the victims of trauma. Early childhood survivors of trauma thrive and evolve more resilient if they are exposed to positive and compassionate experiences by the care-givers[32]. In the process of continuous delivery of compassionate cere-giving for children (with past traumas) at out of home settings, care-takers can be at risk of developing compassionate fatigue or vicarious trauma [33].

Complex developmental or relational traumatic experiences are highly prevalent among the children who live in out of home settings. Therefore, implementation of TIC frameworks in out of home settings fosters secure care-giving attachments through care-givers availability (physical, emotional and psychological) for children that has improved positive outcomes for both children and care-givers [34]. Thus, TIC practice in out of home contexts can achieve the goals of developing secure connections (attachments) embodied with warmth and love to promote healthy living among the children so as to thrive in face of adversities and evolve resilient.

**B. School: Teaching, Learning and Achievement**

Researchers revealed high prevalence of exposure to ACEs among the children. These adversities during the developmental phase of children adversely impact their brain and neurobiology [37]. This in turn affects their capacity to lean learn and remember the concepts learned. The child who is a trauma survivor fails to regulate his reactions to intrusive thoughts and emotions due to dysregulated physiological system which greatly interferes with learning and achievement in academics and behaviour at school (with peers and teachers). Next to home, the school plays a significant role in providing support and care to children who are trauma survivors. Trauma-informed education facilitates the service providers at school (such as teachers, administrators and staff) the skills to recognise reactions of trauma among the students, respond compassionately to co-regulate and prevent re-traumatisation inside the classroom. Further, TIC prevents unwarranted punitive punishments and facilitates service providers to engage in necessary measures for child trauma healing through regular referral to trauma professionals outside the agency. As a result, teachers in the classroom can play a crucial role in providing safe environment for the traumatised students to facilitate learning and achievement among them. This way TIC in schools satisfies needs and requirements of both the students and service providers in the schools finally fulfilling the common objectives of teaching, learning and achievement.

**C. Health Care: Diagnosis, Treatment, Rehabilitation and Care**

Services at health care settings pose risk of triggering past traumatic memories among the health care seekers causing re-traumatisation. Re-traumatisation restricts the sense of freedom, choice and control among the survivors of trauma. [5, 6]. Exposure to potential risk factors (even if unintentionally executed by healthcare providers such as doctor, nurse, physiotherapist, medical technician, staff and administrators) that prevail in various contexts in health care settings (as presented in Table 2) can cause re-traumatisation of trauma survivors.

**Table 1: Risk factors of Re-traumatisation among the Trauma Survivors in Hospital Settings[[5]](#footnote-5)**

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| **Hospital Context** | **Risk factors of re-traumatisation of trauma survivors** |
| Emergency inpatient  wards | Touching the patient, undressing the wounded parts/body and executing physical health check-up without patients’ consent; carrying out diagnostic tests in closed spaces; delivering anaesthesia without preparation; executing surgical procedures without insufficient time to calm down patients’ physiological activation etc. |
| Consultation rooms | Touching and carrying physical check-up without patients consent and comfort; crossing personal boundaries in physical proximity etc. |
| General inpatient wards | Discharging patients without proper sufficient recovery form surgeries etc. |
| Palliative care | Abruptly giving injections, changing dress, carrying out dressings for wounded body parts, etc. |
| Rehabilitation centres | Massage and physiotherapy without patients’ permission and not articulating the intentions behind the procedures clearly etc. |
| Genecology & Obstetrics (Maternity) wards | Hurrying and imposing with physical check-up without permission and comfort of the patient, invading the personal boundaries through proximity and touch, carrying out deliveries for survivors of physical abuse and sexual trauma etc. |
| Paediatric departments | Carrying out investigations, surgical procedures, physical check-up and giving injections when children are anxious or scared or collapsed with distress reactions |

These potential risk factors may trigger dysregulated physiological systems of hypervigilance and/or hypovigilance among survivors of trauma which can impact quality of life, satisfaction and effectiveness of healthcare service delivery. [7]. Effective implementation of TIC interventions in health care settings foster trauma survivors’ well-being, decrease health risk behaviours (such as alcohol consumption and drug use) among them, improve trauma informed skills among the staff by enhancing collaboration.

**V. CHALLENGES IN ADOPTING TRAUMA-INFORMED CARE**

The established evidence on impact of trauma and potential risk factors or triggers that result in re-traumatisation of both service seekers and providers have led to implementation of TIC across various contexts such as out of home context, schools, health care settings etc. However, systematic review findings revealed that there have been several challenges at various levels in effective implementation of TIC in these contexts [36].

The challenges at *individual level* include lack of awareness, staff resistance to change, lack of confidence, fear of re-traumatisation and low perceived relevance. At *organisational level* lack of screening and monitoring, insufficient training, and ongoing training, prolonged & complex training, competing in priories, lack of intra-organisational effective communication and collaboration, staff time constraints, staff turnover, financial constraints, confined physical space, lack of multidisciplinary collaborative teamwork, inflexible policies and procedures, lack of organisational support were found to be the major barriers in effective implementation of TIC [36].

**VI. FUTURE DIRECTIONS**

**A. Trauma-Informed Care and Effectiveness**

Adoption of TIC in specific contexts (within community level) has been found to be effective in fostering welling and satisfaction among both service seekers and providers. However, there is a long way to extend TIC beyond these contexts to socio-political, and cultural contexts adopting Socio-Ecological model [21], which deliberates the dynamic interplay amongst the individual, family, community, societal, cultural and environmental factors. In case of TIC, it offers a scope for understanding the several factors that put service seekers and providers at risk of vicarious trauma and prevent them from re-traumatisation. Besides understanding of these factors and their interplay at various levels, the model also suggests that in order to prevent trauma and re-traumatisation, it is essential to act at various levels of the model simultaneously. Such approach has high probability to endure prophylactic measures in long run towards fulfilling the desired impact of TIC at socio-political and cultural level. Supplementing TIC with socio-ecological model and principles of positive psychology [37]. to foster positive aspects and strengths (over the negatives aspects and weaknesses) among the individuals, communities and societies offers best way to foster TIC and promote scope for effective healing of trauma.

Researchers have identified several enabling factors to enhance adoption of TIC effective in various contexts. The facilitating factors include at *individual level*—staff self-care of the staff, openness to change to TIC and enough time to develop confidence with resources provided; at *organisational level*— ongoing training with audio visuals at all levels within the organisations, tailoring culture and linguistic sensitive interventions, embedding TIC into new employee training, existing procedures, strategic planning and policies, encouraging intra and inter organisational collaboration and teamwork, partnership between the academic and community, offering financial resources, setting new norms of TIC through team building activities that develop shared philosophy and fosters integration, regular monitoring and supervision through engaged leadership[36]. Effective utilisation of these enabling factors in implementation of TIC can fulfil its assumptions at a faster rate and promote better care to trauma survivors.

**B. Trauma-Informed Care and Beyond**

The assumptions and principles of TIC are predominantly ‘Trauma Survivor Care Centric’ in nature. Which means it plays crucial role in prevention of re-traumatisation among the trauma survivors while indirectly facilitating healing of trauma by embodying safe environment and social-regulation from service providers. TIC has limitations in addressing service providers history of trauma and their potential risk towards re-traumatisation. Considering the limitations of TIC, researchers have proposed new framework called Healing Centric Engagement (HCE), a strength-based, inclusive, culture-embodied and collective trauma healing framework to restore identity and promote wellbeing [38].

**VII. CONCLUSION**

Trauma adversely impacts the individuals’ pleasure and meaning in life while taking away sense of safety, agency and power. As a result, the traumatised individuals live altogether in different universe both psychologically (how their brain perceives the surroundings) and somatically or physiologically (how their body/organism perceive the world). In contemporary societies with high prevalence lifetime trauma, trauma-informed care has been effective prophylactic measure in prevention of re-traumatisation at majority of high stress environments. Safe environment and co-regulation fostered though TIC outside the clinical settings sets a precedence for survivors’ trauma healing journey. Despite predominant emphasise of TIC on ‘Trauma Survivor Care Centric’ approach, Caring is Healing. TIC holds its strength in indirectly fostering trauma healing. Establishing new norm of TIC in the societies requires time and effective actions. The barriers in adopting TIC have to be addressed with humility and compassion towards the common cause of trauma healing. Healing Centred Engagement is promising for adopting a strength-based, inclusive, culture-embodied and collective trauma healing framework. Ultimately, goal is to heal the individuals, communities and societies from exposure to trauma. Besides understanding the interplay systems, as proposed by socio-ecological model, it is essential to act at various contexts and levels simultaneously in order to prevent trauma and promote healing.

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1. Source: Authors [↑](#footnote-ref-1)
2. Source: Authors [↑](#footnote-ref-2)
3. Source: Adapted from https://hiveonline.org/trauma-informed-care-collaborating-enhance-safety-healing/ [↑](#footnote-ref-3)
4. Source: Authors [↑](#footnote-ref-4)
5. Source: Authors [↑](#footnote-ref-5)