

Chronic Interpersonal Trauma in Kenyan Adolescents: a Culturally Grounded Model

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Thesis submitted in partial fulfillment of  
the requirements for the degree of  
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of Duke University

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ABSTRACT

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## **Abstract**

The exposure to chronic interpersonal trauma during developmentally critical periods can have pervasive impacts on social, psychological, biological and cognitive functioning. Interpersonal trauma has been associated with a complex range of risk factors at the individual, family, community, and societal levels. However, little research has focused on the interplay between culture and trauma, especially in low- and middle-income countries. The current study is a qualitative investigation to develop a culturally grounded model of interpersonal trauma in Kenyan adolescents. Fourteen focus groups were conducted in three ethnically diverse communities surrounding Eldoret, Kenya with adolescents ages 12 to 18 (n=67) and caregivers (n=54). Focus Group participants identified community leaders and providers and three additional focus groups were conducted with these key informants (n=28). A grounded theory approach was used for data collection and analysis. A culturally grounded model of interpersonal trauma exploring both exposure and symptomatic presentation is proposed. From this investigation, it is apparent that adolescents who experience chronic interpersonal trauma in these communities experience dysregulation symptoms similar to those described in complex trauma theory. However, poverty, martial conflict, caregiver stress, caregiver substance abuse and favoritism emerged as risk factors for interpersonal trauma and indicate measures and interventions developed for the

assessment and treatment of symptoms resulting from interpersonal trauma must be adapted for use in this population.

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# 1. Overview

## 1.1 Introduction

Child maltreatment, the abuse and neglect occurring to children under the age of 18, is a global problem. The WHO reports approximately 20% of women and 5-10% of men report experiencing sexual abuse during childhood. In addition, 23% of people report experiencing physical abuse (WHO, 2008). While culture in many ways defines acceptable interactions with children, a survey of 58 countries led the WHO Consultation on Child Abuse Prevention to define child abuse and neglect as:

All forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power. (Krug & World Health Organization, 2002)

Child maltreatment can have life-long consequences including impaired mental, physical and sexual health as well as poor school performance, relational difficulties and job productivity (Leeb, 2008). Child maltreatment commonly occurs within the family but can also occur by non-familial caregivers or community members. Thus, the broad term interpersonal trauma will be used in the following discussion of childhood maltreatment and is widely defined in the trauma literature as:

The range of maltreatment, violence, abuse, assault, and neglect experiences encountered by children and adolescents, including familial physical, sexual,

emotional abuse and incest; community-, peer-, and school-based assault, molestation, and severe bullying; severe physical, medical, and emotional neglect; witnessing domestic violence; as well as the impact of serious and pervasive disruptions in caregiving as consequence of severe caregiver mental illness, substance abuse, criminal involvement, or abrupt separation or traumatic loss. (D'Andrea, Ford, Stolbach, Spinazzola, & van der Kolk, 2012, p. 188)

## ***1.2 Classifications of Traumatic Experiences***

The term trauma refers both to undergoing the experience of physical or psychological injury and the resulting impairments. In the realm of psychological trauma, the term is similarly used to refer to an exposure and resulting psychological adaptation or symptoms (Courtois & Ford, 2009). Traumatic events can take many forms, ranging from natural disasters to sexual abuse within the home. While traumatic events are diverse in nature, Terr (1991) proposed two categories of trauma: Type I, short term traumatic events, and Type II, sustained or repeated traumatic events. Type I traumas are typically rare exposures as they include unexpected events such as terrorist attacks, traumatic accidents, single events of violence and natural disasters. Type II traumas occur more commonly and include ongoing community or domestic violence, physical, emotional or sexual abuse, and conditions of chronic adversity, such as living in poverty. Type II traumas are typically perpetrated by an individual who has a close relationship with the victim.

The type and number of traumatic exposures individual experiences, as well as the age at which they are exposed, plays an important role in the development of post-

traumatic symptomatology. Type II trauma is associated with a higher risk of developing post-traumatic stress disorder (PTSD) than Type I trauma (Copeland, Keeler, Angold, & Costello, 2007), but symptoms also often go beyond those included in a PTSD diagnosis. This type of chronic trauma can have broader detrimental effects on psychological and socio-emotional development, especially when it occurs during sensitive developmental periods (Cook et al., 2005). The clinical manifestations of exposure to Type II trauma during childhood is complicated and at certain points can meet clinical diagnostic criteria for multiple disorders: conduct disorder, major affective disorder, attention deficit hyperactivity, phobic disorder, dissociative disorder, obsessive-compulsive disorder, panic disorder, and adjustment disorder (Cloitre et al., 2009; Courtois & Ford, 2009; Finkelhor, Ormrod, & Turner, 2007; Ford, Connor, & Hawke, 2009; Ford, Elhai, Connor, & Frueh, 2010). This raised the question of whether there should be different frameworks, diagnostic categories, and assessment procedures for children with Type II trauma exhibiting wide ranging constellations of symptoms. This led to the coining of the term 'complex trauma,' as discussed in the following section.

### ***1.3 Complex Trauma***

The term complex trauma has emerged in western literature to refer to both the exposure to chronic and varied interpersonal trauma and the multifaceted and varied consequences of such exposures. Cook, van der Kolk, Spinazzola and colleagues (2005) identified seven domains of impairment in children exposed to complex traumatic

stressors. These domains include: attachment, biology, cognition, affect regulation, dissociation, behavioral control, and self-concept (Cook et al., 2005).

### **1.3.1 Attachment**

The primary caregiving relationship in early childhood provides the framework in which children form their foundational working models of self-conception, representations of others, and recognition of self in relation to others. Children can develop secure attachment, in which they seek comfort and pleasure from a caregiver but can also separate to explore independently, or insecure attachment, in which they may be overly clingy, avoidant or indifferent to a caregiver (Ainsworth, 1978).

Attachment relationships can be the foundation from which children form developmental competencies, including distress tolerance, curiosity, sense of agency and communication. Thus, secure attachment with a primary caregiver is associated with optimum social, emotional, cognitive, and behavioral outcomes (Parkes, Stevenson-Hinde, & Marris, 2006)

Securely attached children who undergo traumatic experiences are more likely to seek and receive protection and care from their caregivers, buffering them from developing negative post-traumatic psychopathology (Carpenter & Stacks, 2009). Conversely, insecure attachment has, not surprisingly, been associated with child maltreatment. A study conducted by Friedrich (2002) found 80% of children who had experienced sexual abuse developed insecure attachment patterns; insecure attachment has been significantly associated with experiences of physical abuse (Ford et al., 2009). Of the insecure attachment patterns that can result from chronic trauma, the

disorganized attachment style is perhaps most severe, characterized by erratic behavior towards caregivers including aggressive, dismissive and alternately clingy behavior patterns. Later in childhood, this disorganized attachment style can manifest in rigid, extreme, and dissociative survival-based behaviors (Lyons-Ruth, Dutra, Schuder, & Bianchi, 2006). Disruption in attachment can also lead to increased susceptibility to stress, an inability to regulate emotions, and altered help-seeking behaviors (Cook et al., 2005).

### **1.3.2 Biology**

Children exposed to complex traumatic stressors are at risk for problems related to brain development as stress in the environment can lead to changes in neurochemistry and brain organization (Schoore, 2001; van der Kolk, 2003). Childhood maltreatment is associated with a range of structural and functional alterations in the brain and neuroendocrine systems. Teicher and colleagues (2003) found maltreated children had volumetric reductions in the corpus callosum left neocortex, hippocampus and amygdala. Neuroendocrine changes have also been documented in maltreated children including alterations in diurnal cortisol variation (Bevans, Cerbone, & Overstreet, 2008) and lower cortisol levels compared to non-abused peers (Linares et al., 2008).

A child's age during exposure greatly determines resulting impairments. When exposure occurs at 1 to 4 years of age, for example, it can lead to dysregulation of emotional responses to stress; these toddlers respond reflexively to stimuli and struggle to transition from right hemisphere dominance (feelings and sensing) to reliance on left

hemisphere functions (language, abstract reasoning, and long-range planning) (De Bellis et al., 2002). In the early teen years, the most rapidly developing part of the brain is the prefrontal cortex, which is primarily responsible for executive functioning skills necessary for autonomous functioning and engagement in relationships.

Consequentially, exposure to complex trauma can be symptomatically tied to disruptions in affect regulation, consciousness, cognition and self-concept integration during the early teens (Cook et. al, 2005). Cook and colleagues (2005) also note complex trauma is associated with analgesia, somatization, problems with coordination, balance and body tone and increase medical problems including pelvic pain, asthma, skin problems and autoimmune disorders.

### **1.3.3 Cognition and Academic Achievement**

Sensory and emotional deprivation associated with trauma is detrimental to cognitive development, especially when the exposure is early in life. Culp and colleagues (1991) found neglected toddlers and infants were delayed in developing expressive and receptive language and overall had lower intelligence quotients (IQ) than non-neglected infants. In early childhood, deficits in cognition are manifested through less flexibility and creativity in problem-solving tasks. In adolescents deficits in attention, abstract reasoning and executive functioning are demonstrated (Beers & De Bellis, 2002).

Exposure to violence is also linked with cognitive and socio-emotional skill deficits that may impact academic performance (Holt, Finkelhor, & Kantor, 2007). In the United States, maltreated children are three times more likely to drop out of school than

the general population (Shonk & Cicchetti, 2001). Similarly, a cross-sectional study of Jamaican youth found those who were exposed to community violence, aggression amongst peers at school and who suffered physical violence at school were associated with poor academic achievement. A dose-response relationship was observed with the children experiencing the highest levels of violence obtaining the lowest level of scholastic achievement (Baker-Henningham et al., 2009).

### **1.3.4 Affect Regulation**

Affect regulation refers to the ability to regulate responses to stimuli including identifying the emotional significance of a stimuli, producing an appropriate affective state in response and regulating this affective state (Phillips, 2003). In children, this process begins with identification of an internal emotional experience and a differentiation between emotional states (e.g. "happy", "scared"). Beeghly and Cicchetti (1994) found that children with low socioeconomic status (SES) who have experienced maltreatment demonstrated deficits in the ability to label affective states in both self and others as early as 30 months of age as compared with peers. After identification of an emotional state or reaction, a child needs to both express their emotions and regulate their internal experience of the emotion. Children who have experienced interpersonal trauma show a lack of ability to self regulate and self-soothe ((Dorard, Berthoz, Phan, Corcos, & Bungener, 2008; Friedrich, Jaworski, Huxsahl, & Bengtson, 1997) leading to symptoms such as dissociation, chronic numbing of emotional experience, dysphoria, avoidance of affectively-laden situations, and maladaptive coping strategies including substance abuse during adolescence.

The long-term effects of interpersonal trauma on affect regulation have been examined with twin studies. Dinwiddie and colleagues (2000) found that twins who experienced childhood sexual abuse were more likely to receive lifetime diagnoses of major depression, conduct disorder, panic disorder, alcoholism, and to report suicidal ideation and suicide attempts than their twin counterparts who had not experienced abuse. In a study evaluating risk factors for depression in adolescents in Rio de Janeiro exposed to violence, victims of serious physical abuse by mothers had 6.49 times the odds of developing depression (CI: 2.07-20.30) compared with adolescents who did not experience.

### **1.3.5 Dissociation**

Dissociation is characterized by disconnected thoughts and emotions, somatic sensations that are outside conscious awareness, and behavioral repetitions that occur without conscious choice, planning or self awareness (F. W. Putnam & Trickett, 1997). Some children who have undergone interpersonal trauma make fundamental dissociative adaptations that can be manifested through automatization of behavior, compartmentalization of painful memories and feelings, and detachment from awareness of emotions and self (Putnam, 1997). Dissociation can serve as a coping mechanism for children who experience chronic exposure to trauma, which in turn can increase difficulties with behavioral management, affect regulation and development of self-concept. Dissociation not only affects daily functioning but also puts children at increased risk for further trauma such as accidents and learning difficulties. Dissociation is also associated with malformations of the brain including decreased left hippocampal

volume, varying cerebrospinal fluid levels of neurotransmitters and their metabolites that are consistent with neurobiological alterations observed after exposure to trauma (De Young, Kenardy, & Cobham, 2011).

### **1.3.6 Behavioral Control**

Interpersonal trauma is associated with both under-controlled aggressive behavior and rigidly controlled behavior patterns. Over-controlled behavior may be exhibited as early as two years old and includes resistance to changes in routine, inflexible bathroom rituals and rigid control of food intake (Crittenden & DiLalla, 1988). Under-controlled behavior is impulsive in nature and may be due to deficits in executive functioning (Beers & De Bellis, 2002; Mezzacappa, Kindlon, & Earls, 2001). Both over and under-controlled behavior may be a result of re-experiencing traumatic stress symptoms, including automatic behavioral reactions to triggers. Behavioral control problems may also result from attempts to gain a sense of control, avoidance and suppression of emotional arousal, or attempts to establish relationships (Cook et al., 2005).

### **1.3.7 Self Concept**

Positive early life experiences, as well as sensitive and responsive caretaking, often foster a strong sense of self-worth and competency. Conversely, interpersonal trauma can lead to a defective, helpless, deficient and unlovable sense of self (Cook et al., 2005). Schneiderrosen and Cicchetti (1991) report that, by the age of 18 months, maltreated toddlers are more likely to respond to self-recognition with neutral or negative affect than non-traumatized toddlers of the same SES. In a national sample of

adolescents, self-concept, as measured by self-esteem, mediated the relationship between victimization and depression (Turner, Finkelhor, & Ormrod, 2010).

#### **1.4 Current Study: Purpose and Rationale**

The impact of interpersonal trauma on adolescent development and psychosocial well-being has not been widely explored in developing countries. However, research supports cumulative adversities such as poverty—the central challenge in the developing world—may lead to and worsen the impact of complex trauma (Vogt, King, & King, 2007). Further, mental healthcare needed to respond to traumatic stress symptoms is extremely scarce in low-income countries, making it important to understand the needs of children in these settings (Kieling et al., 2011). The role of culture and context-specific factors also precludes us from being able to assume that US-based research findings apply universally. Thus, formative studies are needed to explore exposure to interpersonal stressors and their resulting impact across diverse contexts and cultures.

This study seeks to address this gap in literature through the development of a culturally grounded model of interpersonal trauma. Three specific objectives of this study included: (1) define and explore child and adolescent exposure to interpersonal trauma, (2) describe the impact on child and adolescent psycho-social well-being, and (3) explore culturally based social and economic risk factors that impact exposure and maladaptive responses to interpersonal trauma.

## **1.5 Trauma Exposure in Kenya**

Kenya, a low-income country of approximately 43 million residents, is a democratic nation located in East Africa. Data show that exposure to interpersonal trauma during childhood in Kenya is quite high. The 2010 Kenyan Violence Against Children Study surveyed over 3,000 Kenyan children and found that 32% of girls and 18% of boys experienced sexual violence. The study also found 66% of girls and 73% of boys were beaten, threatened with weapons or experienced some other form of physical violence. Furthermore, 27% of girls and 33% of boys experienced humiliation, threats or other forms of emotional violence. Perpetrators of the violence were most commonly people who maintained close relationships with the children including family members, neighbors, or friends.

Mental health outcomes were also assessed, documenting that females ages 18-24 who experienced sexual violence before the age of 18 were significantly more likely to report, poor/fair health, anxiety, depression, and suicidal thoughts than females who did not experience abuse. Similarly, males ages 18-24 who experienced sexual violence before the age of 18 were significantly more likely to report anxiety and depression compared to males who did not experience abuse (VAC, 2012).

Despite the overwhelming evidence for high levels of exposure to interpersonal trauma, no published studies have focused primarily on PTSD rather than the broader impact of interpersonal trauma on child and adolescent psycho-social wellbeing. Previous studies have explored the impact of post election violence and multiple traumas on PTSD (Harder, Mutiso, Khasakhala, Burke, & Ndeti, 2012) and trauma

exposure in urban school children (Seedat, Nyamai, Njenga, Vythilingum, & Stein, 2004). A cross-sectional study of 1110 Kenyan secondary students found 50.5% of students met criteria for PTSD. In addition, the number of traumatic events was positively correlated with PTSD diagnosis (Ndetei et al., 2007). These findings indicate a surprisingly high rate of PTSD and have not been replicated.

### **1.6 Current study: Setting**

The current study was carried out in areas surrounding Eldoret Town, the largest town in the Rift Valley Province (approx pop = 400,000). Eldoret is located on a main transportation route that runs from the coastal port of Mombassa through Nairobi, Nakuru, Eldoret and into Uganda (See appendix B). The town is nestled in the Rift Valley in the Nandi hills and is home to multiple ethnic groups including significant Kikuyu, Kalenjin, Luhya, and Luo populations. Eldoret has experienced multiple periods of ethnic violence including election-related violence in 1992, 1997, 2002 and 2008. Multiple Internally Displaced Persons (IDP) camps were established in Eldoret and the surrounding areas, the last of which was closed in 2013. This study was conducted in two locations in the Uasin Gishu County: Pioneer and Olare, and one location in Bungoma County: Webuye. Locations were selected to achieve ethnic, socio-demographic, and urbanicity variability.

Olare is a peri-urban sub-location in the Uasin Gishu County located approximately 20 miles from Eldoret. The small town in this sub-location, Burnt Forest, was the epicenter of the 2007-2008 post-election violence between members of rival Kalenjin and Kikuyu communities. The town was burned to the ground and hundreds

were slaughtered. Olare was the home to a large Internally Displaced Persons (IDP) camp that was not dissolved until 2013. Today, the Kikuyu and Kalenjin populations are largely at peace and intermingled. The majority of the population is composed of subsistence farmers or day laborers.

Pioneer is an urban slum in the larger Langas slum outside adjoining Eldoret Town and characterized by adjoining mud and tin dwellings. Residents are from varied tribal backgrounds and are generally day laborers or have small businesses such as selling vegetables. Langas was also home to multiple IDP camps following the 2007 post-election violence. An urban, more Westernized subculture has begun emerging in this area and is starting to replace more traditional cultural beliefs and practices. This is exemplified in the use of Sheng, a slang language derived from Swahili, English and bits of tribal languages.

Webuye is a rural town located in Bungoma County, 45 miles north of Eldoret and home to the largest paper factory in the region, Pan African Paper Mills. The majority of the population is subsistence farmers from the Luhya tribe. Polygamy is still an accepted practice in the Luhya tribe.

## **2. Academic Manuscript**

### ***2.1 Background***

Child maltreatment, the abuse and neglect occurring to children under the age of 18, is a global problem and a “silent epidemic” (Kaffman, 2009). Child maltreatment has been shown to be linked to anxiety, conduct disorder, aggression, delinquency, suicide

risk, high-risk sexual behavior, post-traumatic stress disorder, poor physical health and substance abuse (Leeb, 2008). In addition, in adulthood, victims of child abuse are at higher risk for alcohol and drug dependency, obesity, physical inactivity, attempted suicide and sexually transmitted infections (Butchart, 2008; Felitti et al., 1998). Child maltreatment has been found to be associated with a complex range of risk factors at the individual, family, community, cultural, and societal levels including poverty, HIV and AIDs, marital conflict, parental mental health, and child temperament (Butchart, 2008; Gardner, Sonuga-Barke, & Sayal, 1999; Rispens, Aleman, & Goudena, 1997; Seedat, Van Niekerk, Jewkes, Suffla, & Ratele, 2009).

A growing body of literature has explored the impact of interpersonal trauma and shows that chronic exposure during developmentally critical periods can have pervasive impacts on social, psychological, biological and cognitive development (Cook et al., 2005; D'Andrea et al., 2012; Spinazzola, Blaustein, & van der Kolk, 2005). The term complex trauma has been introduced in Western literature to refer to both the exposure to chronic and varied interpersonal trauma and the multifaceted and varied consequences of such exposures. Complex trauma is associated with dysregulation across seven domains: biology, affect, behavior control, dissociation, attachment, cognition, and self-concept. Evidence of these pervasive and wide-ranging impacts of complex trauma has led to a call for a developmentally appropriate trauma diagnosis (D'Andrea et al., 2012). Thus, the syndrome "Developmental Trauma Disorder" has been proposed as a diagnosis for children who have histories of complex trauma (van der Kolk, 2009; Van der Kolk, 2005).

Interpersonal trauma has been widely explored in marginalized US populations. The generalized clinical findings are that people of lower socio-economic status (SES) are more likely to be exposed to and victimized by chronic violence. Low SES in US populations is associated with experiencing more caregiver perpetrated abuse, sexual and physical assaults by peers, witnessing domestic violence and exposure to gang or community violence (Berthold, 2000; Breslau, Davis, Andreski, & Peterson, 1991; Giaconia et al., 1995; Schwab-Stone et al., 1995; Singer, Anglin, Song, & Lunghofer, 1995). Living in an area of social and economic deprivation may not only increase the likelihood of experiencing multiple exposures but may also intensify the effects of this victimization (Breslau, 2004; Chen, Keith, Airriess, Li, & Leong, 2007).

Epidemiological studies have clearly shown that child maltreatment is a global phenomenon and occurs at similar or higher rates in low and middle-income countries compared with developed nations (Finkelhor, 1994; Runyan & Eckenrode, 2004). A review of 15 qualitative studies in Sub-Saharan Africa reveals that orphans and non-orphans are exposed to experiences of intra-household discrimination, material and educational neglect, excessive child labor, exploitation by family members and psychological, sexual and physical abuse. The perceived risk factors for abuse identified in these studies included poverty, living with a non-biological caregiver, stigma and alcohol abuse (Morantz, Cole, Vreeman, & Ayaya, 2013). This study did not, however, explore the psychosocial impacts of these exposures or the mechanisms by which they affect children's functioning.

In Kenya specifically, a low-income country of 43 million residents in East Africa, children under 18 are exposed to high rates of interpersonal violence and abuse. A 2010 national survey of 3,182 adolescents and young adults indicates seven out of ten females and eight out of ten of males experience at least one type of interpersonal violence (physical, sexual or verbal/emotional) prior to age 18. Physical violence or abuse was the most commonly reported followed by sexual and verbal or emotional abuse respectively. Caregivers were the most common perpetrators of physical and verbal or emotional violence, while the adolescent's romantic partner most commonly perpetrated sexual violence. In addition, children frequently reported experiencing multiple forms of violence (Kenya National Bureau of Statistics [KNBS], 2010).

Little has been done to explore the impact of interpersonal trauma on psychosocial functioning in Sub-Saharan Africa (Smigelsky et al., 2013). However, it is important, as research in the US supports cumulative adversities such as poverty and displacement may lead to and worsen, the mental health impact of complex trauma (Vogt et al., 2007). These adversities are common across LMICs and Kenya, where over half of the population lives in poverty and over 600,000 residents were displaced due to 2007 and 2013 post-election violence (IRIN, 2013). Context-specific studies are also important because culture influences risk factors for exposure to interpersonal stressors, the perception of stressors as traumatic, and the pathways through which exposures and symptoms are connected (Wilson, 2007). This study seeks to address this gap in literature through the development of a culturally grounded model of interpersonal trauma. Three specific objectives include: (1) define and explore child and adolescent

exposure to interpersonal trauma, (2) describe the impact on child and adolescent psychosocial well-being, and (3) explore context- and culture-related risk factors that affect exposure and responses to interpersonal trauma.

## **2.2 Methods**

The data for this study were drawn from a larger study investigating both positive and negative patterns of family functioning carried out by researchers from Duke University and Moi University in collaboration with AMPATH, the Academic Model for Providing Access to Health Care, a partnership between Moi University, Moi Teaching and Referral Hospital and a consortium of North American academic medical centers. The purpose of the overall study was to understand the positive and negative interactions in Kenyan families that impact child and adolescent psychosocial functioning in order to inform the development of culturally relevant measures of family functioning, and mental health, and inform the development of family-based interventions. Interpersonal trauma was a valuable as a specific subtopic explored in the overall study as it characterizes the most negative interactions between caregivers and children. The overall study was conducted in Kenya, in three phases characterized by different populations and qualitative data collection methods that built upon one another. Methods included semi-structured interviews and focus group discussions. Questions exploring interpersonal trauma were integrated into all of these phases. Interpersonal trauma emerged as a prominent negative interaction between caregivers and children in this larger investigation. Nesting this exploration in a larger discussion

of family patterns leading to risky and resilient child outcomes allowed for a deeper understanding of contextual and cultural risk factors for interpersonal violence.

An additional phase was conducted for the purpose of this study and included brief ranking exercises to explore community-based perceptions of interpersonal violence.

The purpose of each phase as related to the current investigation of interpersonal trauma is presented in Table 1.

### **2.2.1 Participants**

Participants included local mental health experts, as well as adolescents, caregivers, and key informants from study communities. Nine semi-structured interviews were conducted with mental health experts defined as professionals who were involved in the development, evaluation or provision of psychosocial support to families and/or adolescents. AMPATH programs related to children and families were identified and program leaders were asked to suggest family functioning experts to participate in interviews. Each expert interviewed was then asked to suggest additional experts to talk to. Participants included social workers, counselors, psychologists, a psychiatric nurse, a pediatrician and a pastor. Interviews investigated the scope and impact of interpersonal trauma in the community and their professional views on assessment and treatment. These responses then informed the data collection with community members.

In the second phase, focus groups were conducted with caregivers and adolescents. Adolescents were between the ages of 12 and 17, and participants included orphans, defined as an adolescent who had lost one or both parents. Caregivers included

any adult at least 18 years old living with and caring for at least one adolescent in this age range. To identify potential families to participate in focus groups, investigators partnered with local community health workers associated with a separate research study on orphans and vulnerable children, village elders, chiefs, and government community health extension workers. Families and individual participants were purposively sampled from identified families to ensure diversity across tribe, occupation, income level, family structure and orphan status.

Focus groups were conducted with 121 community members (61 adolescents; 54 caregivers) across three communities. Adolescent had a mean age 14.4 years and households were comprised of an average of 8.5 members. Participants were from 83 different families, as up to two participants could be selected from each participating family. Participants were representative of the four main tribes inhabiting the area (see Table 2). Focus groups explored community perceptions of interpersonal trauma, including descriptions of traumatic stressors, family dynamics, psychosocial reactions to stress and pathways leading to risk and resilience. Groups also included role-plays to inform an understanding of positive and negative family interactions through direct observation.

In Phase 3, additional focus groups were conducted with community key informants (n=28) identified by caregiver and adolescent focus groups in response to the question “Who in your community is most knowledgeable about these family issues that you think we should talk to?” Identified individuals consisted of District Chiefs, Elders, pastors, church mothers, teachers and healthcare providers. Key informants were

purposively sampled from these lists to ensure gender, ethnic and occupational diversity. The groups were presented with a list of themes that emerged from the Phase 2 focus groups for discussion and were asked to generate ideas for interventions.

In Phase 4, brief ranking exercises were conducted with a small convenience subsample of caregivers (n=4) and adolescents (n=8). Exercises explored local terms for trauma and asked participants to rank the likelihood of a stressor contributing to a child exhibiting trauma related symptoms that were common in the data.

**Table 1: Phases of Research**

<b>Phase</b>	<b>Participants</b>	<b>Purpose</b>	<b>Method</b>
1.	Local mental health experts (N=9)	Identify challenges facing families, existing interventions and support structures	Semi-Structured Interviews
2.	Caregivers and adolescents (N=121)	Explore trauma within the family and impact on adolescent psycho-social functioning	Community Focus Group (N = 14 groups)
3	Community key informants (N=28)	Discuss findings with influential community members; Elicit intervention recommendations	Key Informant Focus Groups (N = 3 groups)
4	Caregivers and adolescents (N = 9)	Understand local terms for trauma and outcomes; Compare impacts of traumatic exposures in terms of symptom severity	Short surveys on impact of traumatic events

**Table 2: Community Focus Group Demographics**

<i>Demographic</i>	<i>Breakdown</i>	<i>n, (percent)</i>
Tribal Affiliation	Kikuyu	28 (23%)
	Luo	10 (8%)
	Luhya	49 (40%)
	Kalenjin	35 (29%)
Adolescent Orphan Status	Non-Orphan	38 (31%)
	Maternal Orphan	4 (3%)
	Paternal Orphan	17 (14%)
	Double Orphan	5 (4%)
Participants by Focus Group Type	Female Caregivers	25 (21%)
	Male Caregivers	29 (24%)
	Female Youth	17 (14%)
	Male Youth	29 (24%)
	Orphan Youth	21 (17%)
Caregiver Education	None	3 (5.5%)
	Primary (Std 1-4)	7 (13%)
	Primary (Std 5-8)	26 (48%)
	Secondary	15 (28%)
	Post-graduate	3 (5.5%)

### **2.2.2 Procedures**

This study was conducted in three locations surrounding Eldoret, Kenya, the largest town in the Rift Valley Province. Eldoret is home to Moi University School of Public Health, Moi University School of Medicine, and Moi Teaching and Referral Hospital, the only national medical school and referral hospital outside of Nairobi. Study locations included Pioneer, an urban slum or estate; Olare, a peri-urban sublocation 30 miles south of Eldoret; and Webuye, a rural village in Bungoma County 45 miles north west of Eldoret. Locations were selected to achieve ethnic, geographic,

and socio-demographic variability.

The US-based principal investigator and student researcher conducted semi-structured expert interviews in English, as all mental health experts spoke English fluently. Focus groups with adolescents and caregivers were conducted in Swahili or tribal languages by Kenyan research volunteers trained in focus group administration and research ethics. Each research team included a note taker and a discussion leader. Key informant discussions were conducted in a combination of English and Kiswahili, with the US-based principal investigator posing questions in English that were then translated to Kiswahili for the group. All interviews were audio-recorded and transcribed into English with notations on common Kiswahili phrases relevant to the research questions.

All focus groups were held in a central location that was not associated with the medical system to avoid community stigma surrounding frequenting medical facilities that provide HIV testing and treatment. Minor travel expenses were reimbursed and all participants were provided with refreshments. Informed consent was obtained from all adult participants at the time of the focus group, and caregiver permission and child assent were obtained for adolescent participants. Permission to work in a location was obtained from the local chief prior to recruitment. Study procedures were approved by the Institutional Review Board at Duke University and the Institutional Research Ethic Committee at Moi University College of Health Sciences and Moi Teaching and Referral Hospital.

### 2.2.3 Analysis

Data collection and analysis was conducted using a grounded theory approach. The development of focus group guides was directed by principles of grounded theory in that questions were very broad in the beginning and were narrowed throughout data collection. Data were analyzed after each discussion with the research assistants who conducted the focus groups with the principal investigator and student researcher. Based on this, subsequent focus group questions were modified to include narrowed topics and questions to gather more in-depth data on emerging themes; questions also were eliminated once saturation was reached. After the focus groups (phase 2) were completed, the research team participated in a three-day analysis session that led to the identification of overall themes and the development of a preliminary model exploring positive and negative family interactions including interpersonal trauma. The resulting model and themes were then presented to community leaders during the key informant focus groups (phase 3). Community leaders used the proposed model as a foundation for their discussions about current and potential sustainable interventions to the multitude of problems families face.

For analysis of the complete dataset, data were first open coded by the research team. These open or substantive codes were then organized into categories according to Strauss and Corbin's theory of axial coding (Corbin & Strauss, 1990). Utilizing the axial codes, all transcripts were coded using Dedoose, a web-based mixed-methods software program. Codes pertaining to this investigation were then identified and further analyzed. Codes exploring direct trauma exposure included: *Caregiver harsh child*

*treatment or abuse and Non-caregiver harsh child treatment.* Child outcome codes included: *Child psychological/emotional, Child social behavior/characteristics, Child academics, Child negative/risk behaviors, Child sex-related behavior, Child physical health, and Child adult outcomes.* *Pathway codes* were then developed to identify passages that showed associations between family and community factors and child outcomes. These codes included *Pathway: Marital influence on child, Pathway: Community influence on child, and Pathway: Caregiver influence on child* (See Appendix C). Memos were then written following principles of theoretical memoing (Birks, Chapman, & Francis, 2008). This led to the development of trauma exposure and psychosocial outcome categories. Pathway excerpts were coded for type of exposure and type of outcome and risk factors were identified for these pathways. Results were synthesized into a final conceptual model.

## **2.3 Results**

### **2.3.1 Traumatic Exposures**

Participants were asked to list examples of the most harmful or negative events that children in their community experience (see Table 4). Interpersonal stressors listed were further explored in focus group discussions. Verbal abuse, sexual abuse, physical abuse, emotional neglect, material neglect, and child hard labor emerged as the most commonly discussed interpersonal stressors that lead to negative child outcomes. As one male youth noted, “what makes children suffer psychological problems are the constant mistreatments from their parents.”

**Table 3: Negative Events Experienced by Adolescents**

<b>English</b>	<b>Kiswahili</b>
Rape by a family member	Kubakwa na mtu wa jamii
Rape by someone other than your family member	Kubakwa na mtu mwingine hasiyekuwa wa jamii
Sexual harassment	Kudhulumiwa kimapenzi
Traffic accident	Ajali barabarani
Robbery with violence	Ujambazi
Theft (non- violence)	Uwizi
Death of a parent	Kifo cha mzazi
Death of extended family or friend	Kifo cha mtu wa ukoo au rafiki
Witnessing a murder	Kushuhudia mtu akiuliwa
Witnessing a fight injury	Kushuhudia watu wakichapana au mtu akiumizwa
Witnessing quarrelling between parents (verbal)	Kushuhudia Wazazi wakigombana
Witnessing parents having sex	Kushuhudia wazazi wakifanya mapenzi
Having unwanted pregnancy	Kupata mimba isiyohitajika
Not having money for school fees	Kutopata karo ya shule
Having one meal per day	Kupata chakula cha mchana pekee au jioni pekee kwa siku
Putting on torn clothes	Kufaa nguo ambazo zimeraruka
Child labor	Mtoto Kufanyishwa kazi kubwa
Hitting with a small stick	Kuchapwa na kiboko kidogo
Hitting with a pipe, machete or sharp object	Kogongwa na panga, ama kitu
Early marriages	Kuolewa kwa umri mdogo
Burning with a hot object	Mzazi kukuchoma na chuma moto au basi
Beating to the point of bleeding	Kuchapwa mpaka damu ikutoke
Verbal abuse	Matusi mabaya
Lack of parental love	Kukosa mapenzi ya wazazi
Parents not providing financially	Wazazi kutowapa watoto mahitaji yao
Disowning	Kuachwa na mzazi*
Separation	Wazazi kuachana
Divorce	talaka
Being bullied by peers/siblings	Kuchokozwa na marafiki au ndugu na dada zako
Having an abortion	Kutoa mimba
Squeezing the male genitals	Kufinywa kwa sehemu ya kuume
Engaging in commercial sex	Kujihusisha kwa ngono ili kupata malipo
A parent who comes home drunk	Mzazi mlevi kila wakati

Running away from your parents	Kuwatoroka wazazi wako
Having your house destroyed	Nyumba yenu kubomolewa
Being in a community with tribal conflicts	Kuwa katika jamii ambayo iko na migogoro ya kikabila
Seeing dumped dead body	Kuona wafu ambaye ametupwa mahali
Having painful and scary medical treatment in a hospital/clinic where you were very sick or seriously injured	Kuogopa sana matibabu hospitalini/kliniki ambapo ulikuwa mgonjwa sana ama ulikuwa umeumia sana
Hearing about the violent death or serious injury of a loved one	Kusikia kuhusu mtu unayempenda kama ameuliwa kwa njia ya unyama ama ameumia vibaya sana
Being in a home where people abuse drugs or alcohol	Umewahi ishi na watu ambao wanatumia madawa ya kulevya na pombe

### 2.3.1.1 Verbal Abuse: Matusi

Matusi (verbal abuse) within the family is described as “using words that will sink to your heart and stick forever,” most often consisting of insults and threats. Many times insults implied uselessness. In several examples, children were likened to animals, as in the statement, “You are more stupid than this cow.” Uselessness was also communicated through other metaphors comparing children with inanimate objects; for instance, a caregiver may say, “What type of child is this that I gave birth to? I must have thrown the child and brought with me the placenta.” In addition to implying uselessness a caregiver may even suggest regret for having the child:

*I wish I didn't give birth to you. You should have remained in my flesh to get more energy and do my work...I don't know even why I gave birth to you. If I would have given birth to a goat it would have been even more important than you.*

A final category of comparison-based insults tended to reflect ongoing tensions in the family, with one parent likening the child to the other parent, as in “You are stupid like your father.”

Threats tended to revolve around the provision of goods including threatening to refuse to pay for school fees or provide basic needs. A caregiver may threaten that a child “will not have supper today” or that “the money for [the child’s] school fees will be used to release the goats.” Male youth and orphan groups mentioned that caregivers would threaten physical harm, including beating. In the most extreme cases, a caregiver may even threaten one’s life. For example, “[a stepmother] even tells you she will put poison on your food.” However, threatening one’s life did not emerge as a common theme across all groups.

Harsh verbal interactions can be reactionary to child behaviors, which was mainly discussed around a child’s poor school performance. Harsh words may be used with the intention of correcting or disciplining a child. However, some recognized that harsh emotionally-fueled verbal interactions do not lead to positive behavior change:

*Even if the child has done something wrong, just calm down and the child will correct him/herself. How you talk to this child will matter a lot. Do not use abusive language because the more you do it, the more you will continue to be distant to that child and the child not will reform.*

### **2.3.1.2 Parental Rejection: Mtoto Kutengwa na mzazi**

Motto kutengwa na mzazi was a Kiswahili phrase associated with being isolated or rejected by a parent, most often physically or emotionally. This can include the actual

“chasing away” of a child. As a male youth noted, a family will “chase [a child] away because they despise (wanamtharau) her/him.” This may also include the physical throwing-out of a child’s belongings. Often, both of these are associated with pressure to leave the family, which in turn leads to the child taking on adult roles, such as dropping out of school to take on full time employment or getting married early:

*They throw your belongings out and ask you to go and get married...for example, some may attend, say a funeral, in the neighborhood. Coming back, you find your belongings have been thrown outside.*

Rejection can also be more emotional and neglectful in nature. This may include purposely asking a child to perform tasks that put them in dangerous situations, conveying a lack of attachment and value. In addition, participants discussed an apparent negligence by the caregivers to even attempt to provide basic needs such as, food, clothing, school fees and healthcare to a child. While many participants expressed living in poverty was a common challenge facing families, it was a caregivers lack of effort to provide rather than the actual ability to provide basic needs that led to children feeling unwanted and rejected.

*Some parents torture their children psychologically, for example, sending them to buy...and if accidentally bitten by a dog before reaching the shop, the father would not bother...The child may fall sick and even die but he doesn't care.*

### **2.3.1.3 Physical Abuse: Kidhulumiwa Kimwili**

Kidhulumiwa Kimwili was described by this population as inflicting physical damage with the intention to hurt as the central purpose of the act. As one male youth

described, "You may find a parent beating the child severely or burning him so severely it may result to internal or physical injury; so this child will be hurt emotionally and physically." Examples of physical abuse include: slapping, kicking, beating, pinching, biting, burning with a hot object, beating with a sharp object, rod, knife or panga (machete), or squeezing a male's genitals. Physical abuse of this type appears to be more reactionary than premeditated in nature, often in response to a negative behavior as an extreme act of discipline. A male youth explained:

*Some parents, when told by neighbors' that your child has done something wrong, instead of him coming and asking you about it ...he just begins to kick you, punches you and even bites you.*

Beating a child is also a common form of discipline in Kenyan culture. However, harsh physical interaction with the purpose of punishment is generally described using the term "kuadhibu motto," or beating, rather than "Kidhuluminwa kimwili," translated as physical abuse. While some participants endorsed alternatives to corporal punishment, it was still recognized as a potentially positive parenting technique. To be considered positive, however, the beating needs to be more purposeful in nature and not a reaction driven by anger. Participants mentioned dialogue should accompany a beating so the child knows why they are being punished and will not repeat the same behavior. When comparing the negative and positive forms, participations placed stipulations on the type of physical punishment that is appropriate:

*When beating them they should use a small stick depending with the age of the child. For children age of 3-5yrs they should use a slippers, and when beating the child they should be careful on where they are beating. (Olare Orphan)*

*A good parent is one that punishes children depending on the age and the mistake they have done. For example you cannot hit a three year-old child with a cooking stick, but rather you pinch him. A bad parent is one that if a child eats sugar in the house he burns him with a hot panga. So a good parent is one that knows how to punish the child and with what and to what extent. (Pioneer Male Youth)*

Further discussion elucidated that chronicity of the physical discipline also played a role in the perception of the effectiveness of it as a punishment:

*You may beat your child with the hope of him/her changing but they might get used to and it might not be effective. The child might say, 'further more I am used to this, I will just be beaten and get it over with.' So I think there can be a slight beating and also sit with them and talk to/with them. (Olare Female Caregivers)*

#### **2.3.1.4 Child Hard Labor: Mtoto Kufanyishwa kazi kubwa**

Child hard labor was discussed within the context of the family and included: overworking children, forcing children to do heavy work, such as cutting sugar cane and loading it on a trailer, and requiring young children to complete tasks beyond their capability; for example, having young children cook and babysit their siblings. Child hard labor was discussed as both a punishment and a form of discrimination. This was most often discussed in conversations surrounding unequal division of labor within the

household with caregivers assigning a higher quantity or harder tasks to unfavored children:

*You find, maybe a parent has given a lot of work to one child, like washing clothes, cleaning utensils and cooking. He gives much work to the one he discriminates.*

Completing hard labor may also inhibit a child from attending school or completing schoolwork and lead to hopelessness or running away. A situation typical of responses in the data was portrayed in an orphan group role-play exercise. In this role play an unfavored child (Eric) is assigned a large quantity of household tasks when he requests school-fees, while his favored sibling (Victor) is given school fees and allowed to study:

*Victor : May I come in? I have been sent from school for school fees.*

*Father : How much is required?*

*Victor : 2,000 shillings (he is given by his father and goes back to school, Eric comes home)*

*Eric : May I come in please? I have been send home for schooling fees.*

*Mother : (shouting) You always come home for school fees, there is no money for you. Go wash the clothes, clean the utensils, sweep the house and dig the shamba. (Eric cries)*

*(Victor arrives from school)*

*Victor : Hello mum, I want to go and read*

*Mother : okay, read well (Eric comes back, he has finished the work he was given)*

*[The pattern of caregivers giving Eric more work and allowing Victor to do as he pleases continues.]*

This exemplifies a typical relationship between an unfavored child and a caregiver. Participants noted an orphan was likely to be denied school fees and assigned harsh labor while biological adolescents were provided for and shown leniency. This relationship may also arise between a stepparent and a stepchild, especially when their biological parent is not present.

#### **2.3.1.5 Sexual Abuse/Rape: Kudhulimiwa kimapenzi/kubakwa**

Both the Swahili terms for sexual abuse and rape were interpreted by the majority of participants to include both forced sexual intercourse and unwanted sexual contact. Participants also referred to “experiencing bad deeds” (fanyiwa kazi mbaya) to refer to experiencing rape or sexual abuse. While the majority of participants discussed sexual abuse and rape as affecting girls and mothers, a significant minority noted boys are also at risk. Many participants discussed fathers as the perpetrators of adolescent sexual abuse/rape; one participant described, “if a father has a daughter who is not biologically [related], he may decide to rape her because the mother is not around.” This act of familial rape may be perpetuated by the cultural view of women as property. This view is clearly illustrated in the tradition of the male suitor providing a woman’s family with cows or goods in exchange for their daughter, which expresses the value of the daughter and the transition of ownership. Perpetrators of sexual abuse can also include romantic partners, cousins, friends, teachers, extended family members, idle men and thieves. This was discussed most frequently by focus groups in Pioneer, an urban center with high rates of crime. As one female youth in Pioneer explained, “sometimes parents sent girls very late in the evening to go to the shop and maybe the way is very

dangerous, they can meet a rapist on the way.” Sexual exploitation of adolescent girls in exchange for goods was also discussed:

*It might not be that case where you are ambushed and raped, but let us say for example you meet somebody and he buys you some mandazis for 20 shillings; when this person asks you that you go to his house you will go there then he will have the opportunity to do what he wanted to do that you didn't know. (Pioneer Female Caregiver)*

It is unclear whether purposive engagement in transactional sex was generally considered a traumatic experience in this population. However, consequences of transactional sex, including HIV acquisition and unwanted pregnancy, were discussed as traumatic in some cases.

#### **2.3.1.6 Poverty: Wazazi Kutowapa Watoto Mahitaji Yao**

Poverty appeared to be both a traumatic stressor and a risk factor for experiencing interpersonal violence in this population. When discussed as a trauma itself, the perceived threat to one's well-being and life due to lack of food was described as leading to cognitive dysregulation as manifested in rumination and subsequent distraction. As one respondent said, “You find a child in class is not even concentrating; she is worried about what she will eat”. This constant rumination over food seemed to be pervasive and was also connected with hopelessness about the future.

## **2.3.2 Psychosocial Outcomes of Interpersonal Trauma**

### **2.3.2.1 Social Behavior**

One of the most common descriptions of adolescents who experienced chronic interpersonal trauma was that they appear withdrawn. Descriptions of both social/behavioral and emotional withdrawal emerged. Kujitenga (to isolate oneself) was used to describe children who do not interact socially with peers and family members. These children look detached, do not play or interact with peers and appear separated from their family. For example, they may walk behind their siblings when going to church and “you would not know it was their child” if you saw the family interacting. These adolescents may both fear interacting with their caregivers if they are the perpetrators of abuse and/or not have the social capability to have healthy peer relationships. In some cases, this pathway may be mediated by a child’s sense of self-esteem and extend to all personal interactions. As one female caregiver explained, an abused child “will always be worried and believe that he/she cannot do a good thing.... in school, they feel that they are isolated from their colleagues.” Abused children may also have impaired ability to share and communicate their emotions. This may stem from a history of being beaten in response to speaking to a caregiver or teacher or having a history of harsh verbal interactions with caregivers.

HIV is highly stigmatized in Kenyan communities. HIV positive adolescents may be socially isolated due to fear of accidentally disclosing their status. There is still a large amount of stigma surrounding HIV in Kenya and participants report HIV positive individuals will even travel to other communities for treatment in an effort to keep their

status hidden. A child with HIV may also fear dying from AIDS leading to reclusiveness. As a key informant noted, “[orphans] suffer from stigma... they get withdrawn and isolated because they know they will die.”

#### **2.3.2.2 Affect**

Children experiencing abuse are described as looking hopeless, sad, worried, and stressed. Additionally, a child who is abused may “feel that the all world is against him.” Abused children were also described as lacking affect. These children look “hardened” and do not express emotion. They may no longer appear to be affected by the abuse. As one key informant noted:

*I once met a child who told me he was called “stukaless” to mean that he is not scared by anything because he has been beaten until he is used to it. Such children have now become resistant and decided they can do anything without care.*

#### **2.3.2.3. Attention/Dissociation**

Children experiencing abuse may exhibit a lack of sustained attention and pervasive rumination over traumatic experiences, which are often connected. Children were described as sitting alone and “in much thought.” This may be due to intrusive memories of the trauma, though the participants did not describe the concept of experiencing flashbacks. These symptoms were highly correlated with decreased attention in school and, subsequently, a lack of academic achievement and even school drop-out. As a male youth noted, “a child who is mistreated at home... cannot concentrate in school; he keeps on thinking about it.”

Participants described that some abused children seem unaware of their surroundings. This emerged as a separate theme from a lack of attention (cognition). Children with dissociative symptoms were described as not seeming connected or active in the world around them. These children were commonly noted as looking “disturbed” whereas children with attention-related impairments were more commonly described as “thinking too much.”

*They are absent minded; let's say, you were chatting together. They are not even concentrating and when people are laughing at a joke they are quiet. If you ask them what you have been discussing, they are totally clueless yet you have been together. They look disturbed... Their minds are blank... for example, they are sent to the shop to buy salt but they end up buying matchbox.*

*You can even be sitting with the child but if you tell the child something he behaves as if you ambushed him or her because the mind was not there; the child was just in another world of thoughts.*

#### **2.3.2.5 Escape Behaviors**

In this population, escape behaviors were conceptualized as behaviors that allowed a child to psychologically and mentally escape the trauma they have been exposed to. Escape behaviors are most commonly associated with parental rejection and living in a consistently negative home environment.

Drugs and alcohol were discussed across all groups as a way to escape from stress. As one male caregiver noted, “you will find most [abused children] are drunkards thinking that it is the best way to reduce their stress.” The use of alcohol by

caregivers to relieve stress was also a common theme and both increased access to alcohol and modeled this escape behavior to adolescents.

Participants commonly noted a child who is experiencing abuse may “run away to get to a better environment.” However, many times, physically leaving the home leads to further exposure to abuse and negative outcomes. Both boys and girls can also become street children (chokora). However, living on the street puts children at risk for sexual abuse by peers and community members as well as increases their access to alcohol and drugs. While there is a culture of alcohol use and glue huffing among street children it is noted that this is similarly a way to relieve stress and escape the harsh realities of living on the street.

Important gender differences emerged in discussions of “running away,” as cultural norms affect the ways in which boys and girls can escape to seek a better life. In rural areas especially, there are few economic opportunities for women. Traditionally, girls stay with their family until marriage, at which point she moves in with the groom and his family. As one female caregiver notes, a girl “might decide to get married as a means of escape from [a negative] family.” Even without getting married, girls who leave their home before marriage are likely to work as prostitutes or engage in sexual relationships with older men who provide for them materially. Early marriage, transactional sex and relationships with older men are all associated with increased risk of STIs, HIV, unwanted pregnancy and psychical, sexual and verbal abuse. Participants from the more urban locations mentioned girls can seek employment as house girls

though they cautioned this puts girls at risk of experiencing forced or hard labor. Boys have more economic opportunities and can seek employment (casual work).

### **2.3.2.6 Suicide**

While suicide was a commonly discussed outcome or reaction to interpersonal trauma, participants reported knowing only about 3 to 7 incidents of suicide in their communities per year. Suicide was most commonly associated with sexual abuse and HIV acquisition, with girls who experienced rape or sexual abuse described as developing self-hatred and becoming suicidal. Suicide was viewed as a last resort, though a minority of participants expressed suicide as the only way a girl can escape the stigma associated with rape and its consequences, such as HIV or unwanted pregnancy).

### **2.3.3 Co-occurrence of Stressors and Outcomes:**

Participants discussed all types of interpersonal trauma as characteristic of families that were not functioning well. In role-plays of “happy” and “unhappy” families, daily interactions between caregivers and adolescents in unhappy families very often involved combinations of harsh verbal and physical interactions and forcing a child to complete hard labor. While different types of abuse were discussed as distinct, it is apparent that these types of abuse often co-occur and that adolescents are likely to experience multiple types of familial abuse. Similarly, outcomes of interpersonal trauma appear to be highly co-occurring. A child from a family that is not functioning well seems to present with impairments over multiple of the outcome domains discussed; they were rarely described as having just one type of symptom in isolation. Thus, few responses linked specific trauma exposures to specific outcomes., Therefore, the central

issue in this context seems to be understanding the risk factors that lead to these negative familial environments that expose children to multiple forms of interpersonal trauma.

### **2.3.4 Interpersonal Trauma Pathways**

Pathways leading to interpersonal trauma as well as connections between exposure to interpersonal trauma and psychosocial dysfunction were explored.

Caregiver substance use, caregiver stress, marital conflict, and favoritism are discussed as proximal risk factors for a child experiencing interpersonal trauma. Poverty emerged as a distal risk factor that impacted these proximal trauma risk factors (see Figure 1).

Poverty also served as a unique risk factor in a pathway leading to HIV stigma. The role of proximal and distal risk factors in the manifestation of psychosocial functioning will also be presented in the descriptions of these pathways.

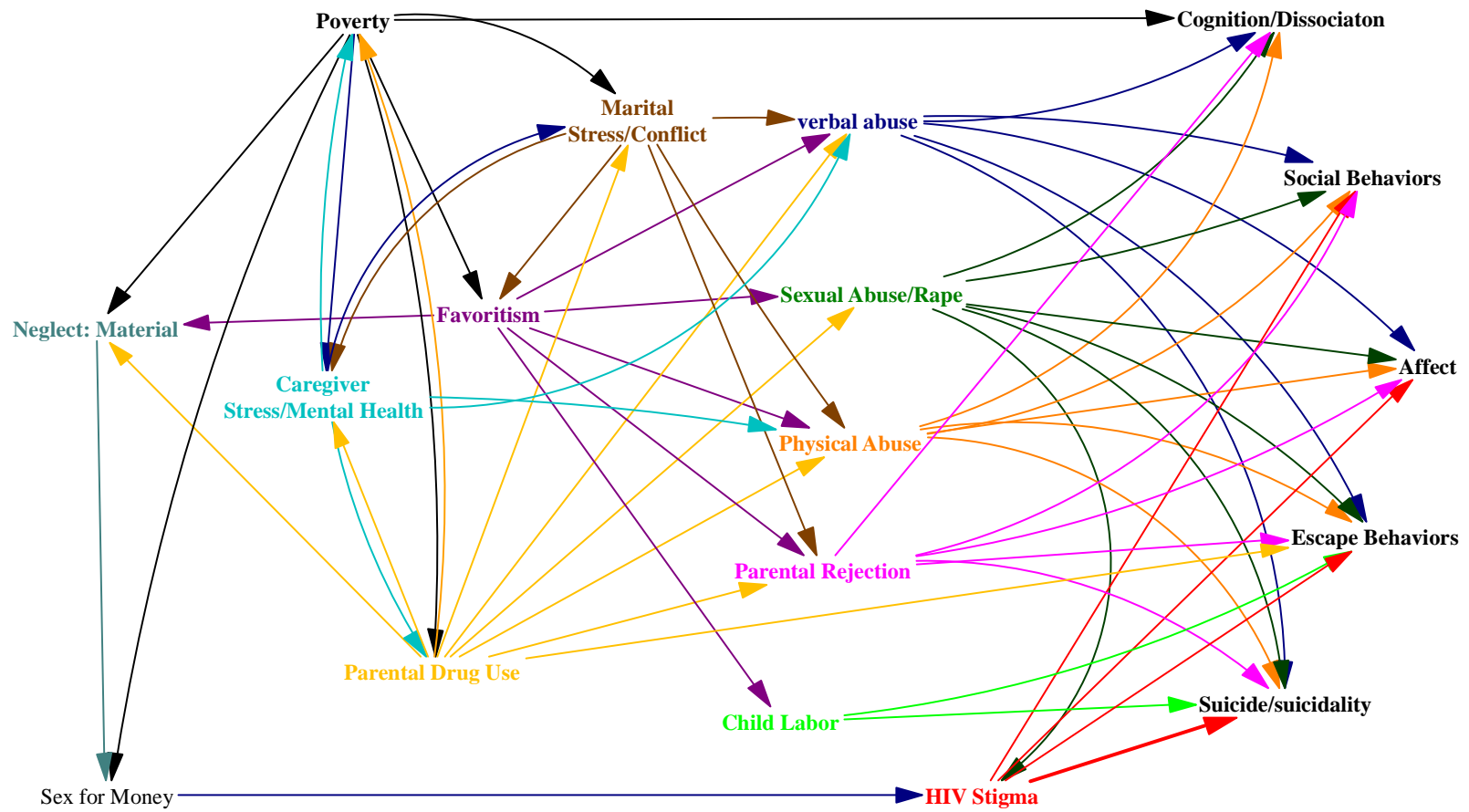


Figure 1: Interpersonal Trauma Pathways

#### 2.3.4.1 Caregiver Substance abuse

Caregiver substance abuse greatly contributes to negative patterns of family functioning and exposure to interpersonal violence. Similar to child substance use, caregiver substance use can stem from a maladaptive coping response to chronic stress. Substance use as a coping mechanism was typically described as a predominantly male practice, though some participants gave example of female caregivers abusing alcohol and drugs as well. Stress leading to substance abuse most commonly stemmed from a caregiver's inability to meet the expectations set by culturally based gender norms. In traditional Kenyan culture the father is responsible for cultivating all cash crops and earning income while the mother is the primary caregiver to children, cooks, keeps the house and tends to any non-cash earning crops. Inability to meet these expectations may lead to feelings of inadequacy, lack of identity and overall worry about the ability for one to provide for their family.

Poverty and substance abuse have a bi-directional relationship and can be mediated by caregiver stress or mental health. Poverty can lead to stress and poor mental health and subsequent substance abuse. Conversely, substance abuse can inhibit a caregiver from obtaining or holding down a job leading to poverty.

*If the mother is not working and everything depends on the father, the responsibilities sometimes may become overwhelming and this can make the father to even start drinking, smoking or taking drugs so as to release stress. (Pioneer Male Youth)*

*If both parents are alcohol addicts, no one who will be in charge of providing for the children hence there will be a lot of conflict in these families. (Olare Orphan)*

Substance abuse can contribute instability within the home due to parental absence and even marital breakup. Participants noted a caregiver who abuses drugs and alcohol may only come home sporadically, may leave their partner and does not financially support their family. This may not only lead to a breakdown in the caregiving structure but can further put a child at risk for exposure to extra-familial abuse and trauma. Parental absence leaves family members vulnerable to community violence such as theft and may force their partner to seek employment. For example, if a father is absent and not earning money a mother may resort to prostitution to earn a living. This can lead to strange men coming into the home and is associated with an increased risk of adolescent sexual abuse by male clients who frequent the home. Participants noted in this situation children felt abandoned and rejected by a parent due to their inability to protect them from abuse and could develop resentment toward their parent. This was associated with running away and, for females, dysfunctional relationships with men.

Participants also note caregivers who abuse drugs (marijuana, “bhang”) and alcohol can commit physical, sexual and verbal abuse while under the influence. When this happens, the abuse is often unpredictable and unprovoked:

*For example if the father is a drunkard and comes home and finds you may be reading he always takes your books and throws them away and starts to abuse you verbally with no reason, this may make the child think that he is not needed in that house. (Pioneer Male Youth)*

This erratic and unprovoked abuse is associated with children becoming withdrawn, having cognitive impairments and escape behaviors, such as substance abuse or leaving home. Children note having a caregiver who abuses substances can make children feel unloved and unwanted in the household. They also mention living in constant fear of a caregiver coming home drunk and abusing them. Caregiver substance abuse was also directly linked to a child also engaging in substance use. This was due to the parents modeling this behavior and increased access to alcohol.

#### **2.3.4.2 Caregiver Stress**

Caregivers who are experiencing stress are portrayed as more likely to be perpetrators of physical and verbal abuse. Caregiver stress may stem from inability to provide for their family, work related stress, and conflict with a partner.

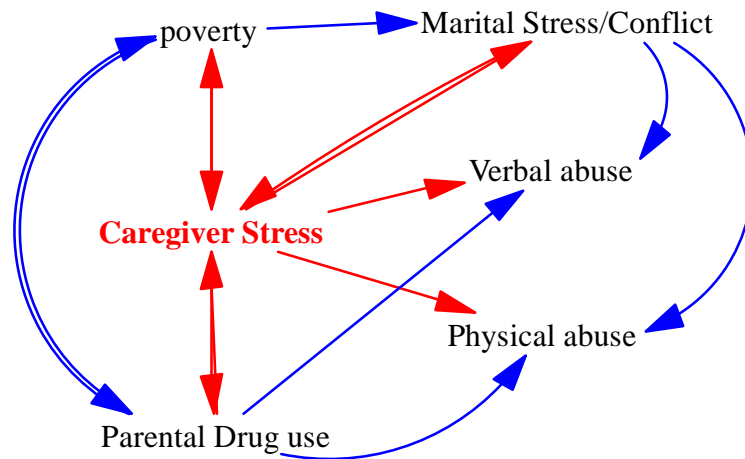
*For instance if a family is poor and a child asks something from the parent, instead of telling him or her that we don't have, you abuse the child. (Olare Key Informant)*

*One thing that make parents abuse children is the frustrations and stress that they go through, for example at their place of work. When they come home they release it on children. (Pioneer Male Youth)*

*You will find that most of the time when a mother has been quarreled by her husband she will take all her stress back to child, the child will be quarreled...verbally abused. (Olare Female Caregivers)*

The transference of stress from a caregiver to a child was highly connected with escape behaviors and cognitive dysfunction. In addition, children were described as being

withdrawn and having an impaired ability communicate with both peers and adults. These children appear to be hesitant to speak and fearful of interpersonal interactions.



**Figure 2: Caregiver Stress as a Proximal Risk Factor for Abuse**

### 2.3.4.3 Marital Conflict

Marital conflicts may revolve around lack of resources, marital roles in the provision of resources, sex, favoritism of children, adultery or caregiver substance abuse. Many marital conflicts are connected to living in chronic poverty. Conflict between caregivers can arise over a partner not fulfilling their “provider roles.” Participants both described a mother quarreling with the husband over his lack of bringing home money or food and the father quarreling with the mother over a lack of prepared food when he arrives home. Conflict may also arise over the use or division of resources. For instance, this can occur when a husband is using the money earned for

alcohol rather than food. Furthermore, culturally, men are often not expected to share financial information with a partner, which can create conflict over whether a husband is hiding money or spending money unwisely. Couples conflict can also stem from changing views on marital roles revolving around the provision of resources.

Participants were divided on whether women should seek income-earning jobs, which may cause conflict between partners if a husband is not supportive of a wife who is working.

Cases of continual marital conflict were sometimes connected to parental rejection of the child. Parental rejection in this context was manifested as a lack of attention, material provision and positive affect towards children. One participant noted, "most of the children who come from such families lack parental love because parents are constantly fighting and take no interest on the children." This rejection and neglect was associated with escape behaviors (e.g., running away and early marriage), feeling of rejection, hopelessness, and worry, as well as becoming involved with negative peer groups.

Marital conflict can also lead to physical abuse due to children becoming involved in the conflict, especially when conflicts between caregivers escalate to include spousal physical and verbal abuse. For instance, adolescents may be victimized when physical abuse occurs between caregivers; as a male youth explained, "when you as a child tries to intervene then you become the victim; all the anger is poured on you; you receive blows and kicks which may injure you." Participants connected both witnessing

marital abuse and being victimized during episodes of domestic violence with high levels of stress and, again, escape behaviors such as running away.

Marital conflict may also be reflected in verbal abuse towards children that reflects the division between parents through the use of phrases such as, “you are stupid like your mother.” This reference to household division and partner conflict appears to be particularly harmful to adolescents as they may begin to question their identity and belongingness in a family:

*The child begins to be suspicious about the other parent and may begin to think that one of them is not her biological parent. She may start thinking a lot about it and eventually it will affect her psychologically.”*

This may be particularly impactful, as non-biological children may be perceived as unwanted and burdensome. Participants connected verbal abuse that recalled marital conflict and questioned family membership with decreased academic performance and escape behaviors such as abusing drugs and alcohol to escape reality.

#### **2.3.4.4 Favoritism**

Favoritism is reflective of alliances within a family and refers to caregivers exhibiting differential treatment that implies certain children are preferred or have greater worth than other children. Favoritism may stem from cultural traditions, poverty, and divisions in the family due to marital conflict. Participants note that orphans and non-biological children are commonly discriminated against. This may be due to the cultural importance placed on one’s biological lineage. This is even reflected in the naming of a child:

*When it comes to naming for instance, the way the Kikuyu name their children is not the same as the Kalinjin. So those named after their “senge”, meaning their fathers side, will be favored and those named on mothers will be discriminated.*

Strong identification with ones biological lineage may also lead orphans and stepchildren not to be considered members of the family. This appears to be exacerbated by poverty. With limited resources, caregivers may not be able to financially provide for all children in their care, contributing to the view of orphans or non-biological children as a burden and to the resentment between orphans and caregivers. As one orphan noted, “step parents also say that if the orphan dies, she/he will have reduced dependency.” Participants explained some guardians do not provide orphans with basic needs, force them to do hard jobs, refuse to pay school fees, and do not provide medical care. In addition, orphans are at high risk of for experiencing abuse by their stepparents or caregivers. Participants noted when a biological parent is not present, stepchildren can be verbally and physically abused and even raped by a step-parent. Marital conflict is also connected with favoritism, as arguments may arise when one parent favors a child over another. This conflict between caregivers can lead to a caregiver discriminating against the child their partner favors:

*When a parent favors one child over another also brings conflict between parents, and you may find when the favorite parent is not at home the child is mistreated by the other.*

Favoritism appeared to be a pervasive and defining influence on caregiver-child relationships. Adolescents exposed to discrimination emerged as having the full range of maladaptive psychosocial functioning indicators that were closely related to feelings

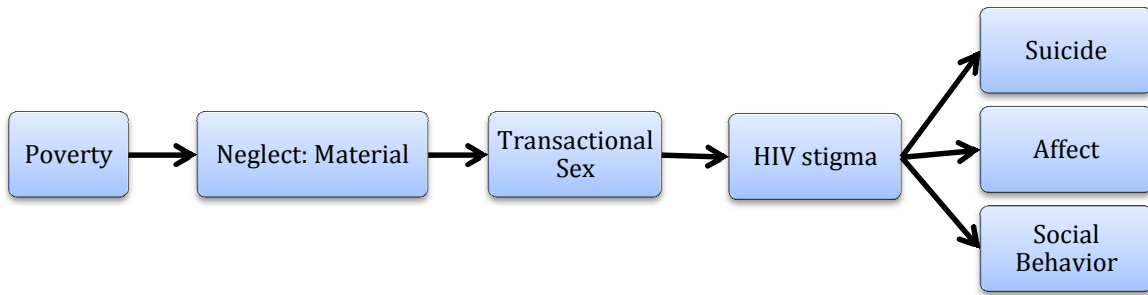
of of rejection. As a male youth noted, differential treatment “really affects the child psychologically because he is being hated and others are loved.” Notably, these children may also seek revenge against their caregivers; it was even noted they could attempt to kill a caregiver out of revenge.

#### **2.3.4.5 Poverty, Transactional Sex and HIV Stigma**

Poverty may force a child to seek ways of earning money or obtaining food and goods. Due to limited economic opportunities for women, girls may resort to transactional sex or prostitution. While it is unclear whether consciously choosing to engage in transactional sex is usually in itself traumatic, participants clearly linked the risky sex behaviors with the acquisition of HIV and unwanted pregnancy, which are described as traumatic and lead to psychosocial difficulties.

*For example, if it is a girl child and she is sent home from school to buy school shoes, the child will come home. When the child reaches home you start being harsh to the child... What the child will do, she will decide that even if she meets someone on the road and gives her some money like 200 shillings, she will buy shoes, go back to school and that is one way the child can get HIV.*

Children engaging in transactional sex are described as isolated and may become reclusive due to fear of being perceived as having HIV. Participants noted the fear of HIV alone was enough for children to become reclusive, ashamed, and even suicidal. In addition, children are described as hopeless, fearful and lacking in self-esteem, which was also associated with suicidality.



**Figure 3: Poverty, HIV Stigma and Psychosocial Impairments**

## **2.4 Discussion**

Childhood exposure to trauma in Kenya is varied and includes both exposure to single incident traumas such as a loss of a parent and chronic or repeated trauma.

Repeated trauma was most commonly discussed as being interpersonal in nature and occurring within the caregiving structure. In Western populations the term complex trauma has been used to describe similarly complex, chronic abusive interactions.

Complex traumatic events have been defined as stressors that are (1) repetitive, prolonged or cumulative (2) most often interpersonal in nature (premeditated and enacted by other humans) (3) enacted by a primary caregiver and (4) often occur during developmentally vulnerable times such as early childhood or adolescence (C. A.

Courtois, 2004). Kenyan adolescents living in dysfunctional families are at increased risk for exposure to complex trauma as distal and proximal risk factors for interpersonal violence are directly connected to overall family dysfunction.

Orphans and non-biological children emerged as the sub-population most at risk for experiencing complex trauma in dysfunctional families. This was largely connected

to discrimination against non-biological children and division in the household. A recent review of physical and sexual abuse in Sub-Saharan African orphans suggests that overall, orphans are not systematically at a higher risk than non-orphans for physical and sexual abuse (Nichols et al., 2013). However, there is extensive support for orphans in the care of non-biological caregivers being at a higher risk for abuse and neglect. In addition, orphans may be at an increased risk for discrimination and neglect when non-biological caregivers have biological children of their own (Ansell & Young, 2004; Foster et al., 1997; Mangoma et al., 2008; McGraw & Wameyo, 2005; Nyambedha et al., 2003; Oleke et al., 2006; van Blerk & Ansell, 2007; Wood et al., 2006; Funkquist et al., 2007; McGraw & Wameyo, 2005)

While distinct types of interpersonal trauma were discussed, it is apparent that a child rarely experiences just one type of trauma or abuse. This is also supported empirically, as a Kenyan national survey on child abuse reports that more than 94% of all victims of sexual violence reported experiencing other types of violence as well, including physical and emotional or verbal violence (KNBS, 2010). Co-occurrence of abuse is likely due, at least in part, to abuse stemming from family-based risk factors.

The impact of interpersonal trauma in Kenyan adolescents spanned multiple domains of psychosocial functioning. Due to the high co-occurrence of different types of abuse it is logical that impairment would be widespread as well. Cook and colleagues (2005) defined seven domains of impairment or dysregulation seen in children exposed to complex trauma: biology, behavior control, affect regulation, dissociation, cognition and self-concept. These domains match the culturally derived categories of psychosocial

impairment presented in this study relatively closely, with the exception of biological dysfunction. This was not surprising, as they were not explored in depth. Though it was unexpected that somatization did not arise as a prominent theme. Anecdotal information that unexplained medical symptoms are sometimes encountered in the hospital setting, prompting the need for psychological evaluation. This warrants further investigation, perhaps particularly among children presenting for medical care.

Escape behaviors emerged as a common response to interpersonal trauma. Escape behaviors can be viewed as both an attempt of a child to escape abuse, often leaving the home, and a response to pervasive feelings of hopelessness and rejection associated with trauma, often running away combined with substance use. Escape behaviors such as early marriage, running to the streets or drug abuse put children at increased risk for living in poverty and continued exposure to traumatic stressors. Likely contributing to this, a national Kenyan study on abuse reported less than 10% of 13-18 year olds surveyed who had experienced abuse in the past 12 months said they knew where to seek help (KNBS, 2010).

While the western conceptualization of complex trauma appears to have surface level validity in a Kenyan population, perhaps not surprisingly since the domains are quite broad, results documented risk factors of leading to interpersonal violence that are certainly grounded in context and culture. The culturally grounded model of interpersonal trauma presented in this paper clearly indicates culturally perpetuated beliefs around marital roles, favoritism of children, substance abuse and HIV greatly impact the exposure of children to interpersonal trauma and resulting impairments.

Similar risk factors for abuse were found in a review of 15 qualitative studies conducted in sub-Saharan Africa. Morantz and colleagues (2013) found support for poverty, living with a non-biological caregiver, stigma and alcohol abuse as risk factors for abuse in orphan and non-orphan populations. This study went further to gain community perceptions on resulting psychosocial distress.

There are notable limitations and strength in this study. First, while participants may have been directly impacted by interpersonal trauma, they were asked to refrain from sharing personal stories and no trauma history was taken. This allowed for the development of a model of interpersonal trauma that was representative of community perceptions of maltreatment. However, the gathering of detailed personal narratives would have elucidated more of the specific trauma pathways and the ways they are manifested on an individual level. Due to the qualitative nature of this investigation, findings also are not generalizable to a larger population and the validity of this model in a clinically affected sample of youth is unknown and requires further exploration. Gender and age differences also were not explored in-depth. While the sample size of this study was relatively small, data saturation of topics was reached. Data credibility was achieved through triangulation of multiple types of data and diverse participants. Data dependability was achieved by involving the full research team in analysis including a preliminary analysis by Kenyan research volunteers who moderated all focus group discussions. In addition, two members of the analysis team coded all transcripts and 100% consensus was achieved. Due to the formative nature of this study,

further quantitative testing is needed in this population to determine the prevalence of explicit complex trauma related symptomatology.

## ***2.5 Conclusions and Implications***

The culturally grounded model of interpersonal trauma developed in this study supports the need to expand the conceptualization of trauma related symptomatology to extend beyond the diagnosis of PTSD. Cultural presentations of distress are overlapping with the domains discussed in western complex trauma literature. This indicates existing measures and interventions for complex trauma could be useful in this population. However, specific cultural and contextual influences cannot be ignored and adaptation of measures and interventions are necessary. The role of pervasive poverty, favoritism, marital conflict, HIV related stigma and caregiver substance abuse serve as unique catalysts and moderators of abuse and subsequent distress in this population. This indicates family-based interventions that also address pervasive poverty are needed to decrease exposure to interpersonal violence and family therapy interventions could have great utility in breaking the cycle of abuse.

## Appendix A



Figure 4: Map of Eldoret

## Appendix B

**Table 4: Codebook with Utilized Codes**

Code	Tier 2 Codes	Description
Child Psychological/Emotional	Child Affective States	Any mention of a child's feelings / emotional well-being that is positive or negative
	Child Madness / "Disturbed"	Description of child using a global term such as "mad," "disturbed," "crazy," or having "psychological problems" or any other word that connotes a state of having overall mental health problems. These could be general terms for psychological problems that are not necessarily as extreme as "mad."
	Child Hope / Hopelessness	A Child's hope, belief (or not) in upward mobility; one's expectations and a child's motivation to work towards future goals
	Child Level of Self-Esteem	Child's negative or positive feelings or thoughts about themselves, either in relation to other people or in relation to what they would like themselves to be
	Child Coping Strategies	Child's behavior tied directly to their response to stressors, positive or negative
	Child Cognitive / Attention Symptoms	Behaviors that relate to the child's thought processes, attention, awareness of surroundings and of the meanings of what is happening around them.
Child Social Behavior/Characteristics	Child Social Engagement / Withdrawal:	Child's interactions (or lack of) with others - positive or negative. This could be specific behaviors or presence/absence of social relationships. <i>These are social behaviors that are not related to helping others or being "good" in social ways. That is pro-social behavior.</i>
	Child Behavior: Pro-social	Child's POSITIVE social behaviors that help others, make others pleased with his/her social responses to situations in which there are ways to help or please others (not just characteristics of their overall social behavior, which would go in Social Engagement)
Child Academics	Child School-Going Behavior	A child's attendance or enrollment in primary or secondary school - past, current or future
	Child Academic Achievement/Performance	Anything related to the level of the child's school performance or engagement (or lack of), including overall progression through school. Can be positive or negative.
Child Negative/Risk Behaviors	Child Behavior: Anti-social / Rule-breaking	Child's NEGATIVE behaviors (or traits) that typically affect others or are done in response to others; often these are behaviors that break rules/laws/social norms and/or behaviors that go against authority figures ( <i>This is the psychological meaning of anti-social, not the behaviors associated with not liking to talk to and be around others - that is Social Engagement</i> )
	Child Substance Abuse	Child's behavior related to drugs (including glue), alcohol, tobacco - or thoughts/consideration of using these; Can be use or NON USE. Can be peers influencing child to use substances.
	Child Idleness	Child spending time doing nothing and/or non-productive activities, such as hanging around in town / the streets - sometimes associated with avoiding positive activities or with not having any positive activities to do. Has a negative connotation.
	Child Escape/Running Away	Child initiated leaving of the family (or wanting to leave the family); Can include temporary leaving as well
Child Sex-Related Behavior	Child Sex-Related Behavior	Anything related to child sexual behavior (or lack of), not JUST the behavior but related issues/consequences; Include communication about sex.
Child Physical Health	Child Physical Health	Positive or negative indicators of child health; Child's level of physical activity, physical symptoms, disease, infection, or any other health condition; Physical behaviors related to bodily functions (sleeping, eating).
Child Adult Outcomes	Child Adult Outcomes	Any good/bad outcomes predicted for the child in the future as an adult or in relation of a behavior that can put you into the "adult" category, such as getting married or having a child

Caregiver Harsh Child Treatment/Abuse	Caregiver Harsh Verbal Child Treatment	Caregiver verbal behaviors that are harsh in terms of potentially causing undue harm, fear, negative emotions, or other negative outcomes in the child.
	Caregiver Harsh Physical Child Treatment	Caregiver behaviors that are harsh in terms of potentially causing physical harm or pain to a child.
	Caregiver Child Sexual Abuse	Caregiver's sexual behavior towards a child; does not include descriptions of a caregiver's lust towards a child, must be a physical act
	Caregiver Harsh Treatment: Other	Harsh treatment by a caregiver towards a child that is not directly physical, sexual or emotional. Not necessarily in response to misbehavior, can be general bad, (not verbal/physical); general statements of "harsh parenting"
	Overworking Child / Hard Labor	Caregiver makes child perform an unusually heavy amount of work including housework or chores. Not necessarily as a form of discipline
	Non-Harsh Discipline	Any response to disobedience or misbehavior that does not fall into the Harsh categories above
Pathway Codes	PATHWAY: Marital Risk/Resilience to Marital Outcomes	Marital codes leading to other marital codes
	PATHWAY: Marital Influence on Child	Marital codes leading to any child outcome codes
	PATHWAY: Family Influence on Child	Family codes leading to any child outcomes.
	PATHWAY: Parent Influence on Child	Parent-child or parent codes leading to child outcome codes
	PATHWAY: Community Influence on Child	Community influence and other external influence codes which lead to child outcomes.

## Appendix C

Table 5: Exposure Rankings

Exposure	FCG 2	FY 2	MY 6	FCG 6	MY 3	Average
Rape	1	1	1	2	1	1.2
Death of someone close	5	2	2	3	2	2.8
Sexual Abuse	2	7	3	1	7	4
Someone in your family having HIV, or having HIV yourself	11	8	4	4	8	7
A parent not being in the home	10	3	6	13	3	7
Child Neglect	4	6	16	5	6	7.4
Accident	6	4	11	15	4	8
Living in Poverty	3	15	5	7	15	9
Harsh Discipline e.g. denying food	13	11	7	11	11	10.6
Verbal Abuse	9	5	17	18	5	10.8
Physical Abuse	8	13	12	8	13	10.8
Unwanted Pregnancy or Abortion	14	9	15	9	9	11.2
Engaging in transactional sex or child labor	17	14	10	6	14	12.2
Witnessing domestic abuse	15	12	14	10	12	12.6
Witnessing someone being killed or seriously injured	16	10	13	15	10	12.8
Natural Disasters e.g. Floods/home destroyed	18	16	8	12	16	14
Robbery/Theft	12	18	9	16	18	14.6
Being Bullied	7	17	18	17	17	15.2

## References

- Ainsworth, M. D. S. (1978). *Patterns of attachment: a psychological study of the strange situation*. Hillsdale, N.J.: Erlbaum.
- American Psychiatric Association. (1994). *The diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed.). Washington, DC: Author.
- American Psychiatric Association. (1980). *Diagnostic and statistical manual of mental disorders* (3<sup>rd</sup> ed.). Washington, DC: Author.
- Beeghly, M., & Cicchetti, D. (1994). Child maltreatment, attachment, and the self system: Emergence of an internal state lexicon in toddlers at high social risk. *Development and Psychopathology*, 6(01), 5–30. doi:10.1017/S095457940000585X
- Beers, S. R., & De Bellis, M. D. (2002). Outcomes of child abuse. *Neurosurgery Clinics of North America*, 13(2), 235–+. doi:10.1016/S1042-3680(01)00003-1
- Berthold, S. M. (2000). War traumas and community violence: psychological, behavioral, and academic outcomes among Khmer refugee adolescents. *Journal of Multicultural Social Work*, 8(112), 15–46. doi:10.1300/J285v08n01\_02
- Bevans, K., Cerbone, A., & Overstreet, S. (2008). Relations between recurrent trauma exposure and recent life stress and salivary cortisol among children. *Development and Psychopathology*, 20(01), 257–272. doi:10.1017/S0954579408000126
- Birks, M., Chapman, Y., & Francis, K. (2008). Memoing in qualitative research Probing data and processes. *Journal of Research in Nursing*, 13(1), 68–75. doi:10.1177/1744987107081254
- Breslau N, Davis GC, Andreski P, & Peterson E. (1991). Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Archives of General Psychiatry*, 48(3), 216–222. doi:10.1001/archpsyc.1991.01810270028003
- Breslau, N. (2004). Trauma Exposure and Posttraumatic Stress Disorder: A Study of Youths in Urban America. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, 81(4), 530–544. doi:10.1093/jurban/jth138
- Butchart, A. (2008). Epidemiology: The Major Missing Element in the Global Response to Child Maltreatment? *American Journal of Preventive Medicine*, 34(4, Supplement), S103–S105. doi:10.1016/j.amepre.2008.01.006
- Carpenter, G. L., & Stacks, A. M. (2009). Developmental effects of exposure to intimate partner violence in early childhood: A review of the literature. *Child and Youth Services Review*, 31, 831–839.

- Chen, A. C.-C., Keith, V. M., Airriess, C., Li, W., & Leong, K. J. (2007). Economic Vulnerability, Discrimination, and Hurricane Katrina: Health Among Black Katrina Survivors in Eastern New Orleans. *Journal of the American Psychiatric Nurses Association*, 13(5), 257–266. doi:10.1177/1078390307307260
- Cloitre, M., Stolbach, B. C., Herman, J. L., van der Kolk, B., Pynoos, R., Wang, J., & Petkova, E. (2009). A Developmental Approach to Complex PTSD: Childhood and Adult Cumulative Trauma as Predictors of Symptom Complexity. *Journal of Traumatic Stress*, 22(5), 399–408. doi:10.1002/Jts.20444
- Cook, A., Spinazzola, P., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., ... van der Kolk, B. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*, 35(5), 390–398.
- Copeland, W. E., Keeler, G., Angold, A., & Costello, E. J. (2007). Traumatic events and posttraumatic stress in childhood. *Arch Gen Psychiatry*, 64(5), 577–84. doi:10.1001/archpsyc.64.5.577
- Corbin, J. M., & Strauss, A. (1990). Grounded theory research: Procedures, canons, and evaluative criteria. *Qualitative Sociology*, 13(1), 3–21. doi:10.1007/BF00988593
- Courtois, C. A. (2004). Complex trauma, complex reactions: Assessment and treatment. *Psychotherapy*, 41(4), 412–425. doi:10.1037/0033-3204.41.4.412
- Courtois, C. A., & Ford, J. D. (2009). *Treating complex traumatic stress disorders: an evidence-based guide*. New York: Guilford Press.
- Crittenden, P. M., & DiLalla, D. L. (1988). Compulsive compliance: the development of an inhibitory coping strategy in infancy. *J Abnorm Child Psychol*, 16(5), 585–99.
- Culp, R. E., Culp, A. M., Osofsky, J. D., & Osofsky, H. J. (1991). Adolescent and older mothers' interaction patterns with their six-month-old infants. *J Adolesc*, 14(2), 195–200.
- D'Andrea, W., Ford, J., Stolbach, B., Spinazzola, J., & van der Kolk, B. A. (2012). Understanding interpersonal trauma in children: why we need a developmentally appropriate trauma diagnosis. *Am J Orthopsychiatry*, 82(2), 187–200. doi:10.1111/j.1939-0025.2012.01154.x
- De Bellis, M. D., Keshavan, M. S., Frustaci, K., Shifflett, H., Iyengar, S., Beers, S. R., & Hall, J. (2002). Superior temporal gyrus volumes in maltreated children and adolescents with PTSD. *Biological Psychiatry*, 51(7), 544–552. doi:10.1016/S0006-3223(01)01374-9

- De Young, A. C., Kenardy, J. A., & Cobham, V. E. (2011). Trauma in early childhood: a neglected population. *Clin Child Fam Psychol Rev*, *14*(3), 231–50.  
doi:10.1007/s10567-011-0094-3
- Dinwiddie, S., Heath, A. C., Dunne, M. P., Bucholz, K. K., Madden, P. A., Slutske, W. S., ... Martin, N. G. (2000). Early sexual abuse and lifetime psychopathology: a co-twin-control study. *Psychol Med*, *30*(1), 41–52.
- Dorard, G., Berthoz, S., Phan, O., Corcos, M., & Bungener, C. (2008). Affect dysregulation in cannabis abusers. *European Child & Adolescent Psychiatry*, *17*(5), 274–282. doi:10.1007/s00787-007-0663-7
- Felitti MD, F., Vincent J, Anda MD, M., Robert F, Nordenberg MD, D., Williamson MS, P., David F, Spitz MS, M., Alison M, Edwards BA, V., ... Marks MD, M., James S. (1998). Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study. *American Journal of Preventive Medicine*, *14*(4), 245–258.  
doi:10.1016/S0749-3797(98)00017-8
- Finkelhor, D. (1994). The international epidemiology of child sexual abuse. *Child Abuse & Neglect*, *18*(5), 409–417. doi:10.1016/0145-2134(94)90026-4
- Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007). Poly-victimization: A neglected component in child victimization. *Child Abuse & Neglect*, *31*(1), 7–26.  
doi:10.1016/j.chiabu.2006.06.008
- Ford, J. D., Connor, D. F., & Hawke, J. (2009). Complex Trauma Among Psychiatrically Impaired Children: A Cross-Sectional, Chart-Review Study. *Journal of Clinical Psychiatry*, *70*(8), 1155–1163. doi:10.4088/Jcp.08m04783
- Ford, J. D., Elhai, J. D., Connor, D. F., & Frueh, B. C. (2010). Poly-Victimization and Risk of Posttraumatic, Depressive, and Substance Use Disorders and Involvement in Delinquency in a National Sample of Adolescents. *Journal of Adolescent Health*, *46*(6), 545–552. doi:10.1016/j.jadohealth.2009.11.212
- Friedrich, W. N. (2002). *Psychological Assessment of Sexually Abused Children and Their Families*. SAGE.
- Friedrich, W. N., Jaworski, T. M., Huxsahl, J. E., & Bengtson, B. S. (1997). Dissociative and Sexual Behaviors in Children and Adolescents With Sexual Abuse and Psychiatric Histories. *Journal of Interpersonal Violence*, *12*(2), 155–171.  
doi:10.1177/088626097012002001
- Gardner, F. E. M., Sonuga-Barke, E. J. S., & Sayal, K. (1999). Parents Anticipating Misbehaviour: An Observational Study of Strategies Parents Use to Prevent

- Conflict with Behaviour Problem Children. *Journal of Child Psychology and Psychiatry*, 40(8), 1185–1196. doi:10.1111/1469-7610.00535
- Giaconia, R. M., Reinherz, H. Z., Silverman, A. B., Pakiz, B., Frost, A. K., & Cohen, E. (1995). Traumas and Posttraumatic Stress Disorder in a Community Population of Older Adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 34(10), 1369–1380. doi:10.1097/00004583-199510000-00023
- Harder, V. S., Mutiso, V. N., Khasakhala, L. I., Burke, H. M., & Ndeti, D. M. (2012). Multiple traumas, postelection violence, and posttraumatic stress among impoverished Kenyan youth. *Journal of Traumatic Stress*, 25(1), 64–70. doi:10.1002/jts.21660
- Holt, M. K., Finkelhor, D., & Kantor, G. K. (2007). Multiple victimization experiences of urban elementary school students: Associations with psychosocial functioning and academic performance. *Child Abuse & Neglect*, 31(5), 503–515. doi:10.1016/j.chiabu.2006.12.006
- Kaffman, A. (2009). The Silent Epidemic of Neurodevelopmental Injuries. *Biological Psychiatry*, 66(7), 624–626. doi:10.1016/j.biopsych.2009.08.002
- Kenya's post election crisis. (2013). *IRINnews*. Retrieved February 7, 2014, from <http://www.irinnews.org/indepthmain.aspx?InDepthID=68&ReportID=78007>
- Kieling, C., Baker-Henningham, H., Belfer, M., Conti, G., Ertem, I., Omigbodun, O., ... Rahman, A. (2011). Child and adolescent mental health worldwide: evidence for action. *Lancet*, 378(9801), 1515–25. doi:10.1016/S0140-6736(11)60827-1
- Krug, E. G., & World Health Organization. (2002). *World report on violence and health*. Geneva: World Health Organization. Retrieved from <http://site.ebrary.com/id/10018409>
- Leeb, R. T. (2008). *Child maltreatment surveillance: Uniform definitions for public health and recommended data elements*. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.
- Linares, L. O., Stovall-McClough, K. C., Li, M., Morin, N., Silva, R., Albert, A., & Cloitre, M. (2008). Salivary cortisol in foster children: a pilot study. *Child Abuse & Neglect*, 32(6), 665–670. doi:10.1016/j.chiabu.2007.06.012
- Lyons-Ruth, K., Dutra, L., Schuder, M. R., & Bianchi, I. (2006). From infant attachment disorganization to adult dissociation: Relational adaptations or traumatic experiences? *Psychiatric Clinics of North America*, 29(1), 63. doi:10.1016/j.psc.2005.10.011

- Mezzacappa, E., Kindlon, D., & Earls, F. (2001). Child abuse and performance task assessments of executive functions in boys. *Journal of Child Psychology and Psychiatry and Allied Disciplines*, 42(8), 1041.
- Morantz, G., Cole, D., Vreeman, R., & Ayaya, S. (2013). Child abuse and neglect among orphaned children and youth living in extended families in sub-Saharan Africa: What have we learned from qualitative inquiry? *Vulnerable Children and Youth Studies*.
- Ndeti, D. M., Ongecha-Owuor, F. A., Khasakhala, L., Mutiso, V., Odhiambo, G., & Kokonya, D. A. (2007). Traumatic experiences of Kenyan secondary school students. *Journal of Child & Adolescent Mental Health*, 19(2), 147–155.
- Nichols, J., Embleton, L., Mwangi, A., Morantz, G., Vreeman, R., Ayaya, S., ... Braitstein, P. (n.d.). Physical and sexual abuse in orphaned compared to non-orphaned children in sub-Saharan Africa: A systematic review and meta-analysis. *Child Abuse & Neglect*. doi:10.1016/j.chiabu.2013.09.012
- Parkes, C. M., Stevenson-Hinde, J., & Marris, P. (2006). *Attachment Across the Life Cycle*. Routledge.
- Phillips, M. L. (2003). Understanding the neurobiology of emotion perception: implications for psychiatry. *Br J Psychiatry*, 182, 190–2.
- Putnam, F. W. (1997). *Dissociation in Children and Adolescents: A Developmental Perspective* (1 edition.). New York: The Guilford Press.
- Putnam, F. W., & Trickett, P. K. (1997). Psychobiological effects of sexual abuse. A longitudinal study. *Ann N Y Acad Sci*, 821, 150–9.
- Rispens, J., Aleman, A., & Goudena, P. P. (1997). Prevention of child sexual abuse victimization: A meta-analysis of school programs. *Child Abuse & Neglect*, 21(10), 975–987. doi:10.1016/S0145-2134(97)00058-6
- Runyan, D. K., & Eckenrode, J. (2004). International perspectives on the epidemiology of child neglect and abuse. *Annales Nestle*, 62(1), 1–12.
- Schneiderrosen, K., & Cicchetti, D. (1991). Early Self-Knowledge and Emotional Development - Visual Self-Recognition and Affective Reactions to Mirror Self-Images in Maltreated and Nonmaltreated Toddlers. *Developmental Psychology*, 27(3), 471–478. doi:10.1037/0012-1649.27.3.471
- Schore, A. N. (2001). The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health Journal*, 22(1-2), 201–269. doi:10.1002/1097-0355(200101/04)22:1<201::AID-IMHJ8>3.0.CO;2-9

- Schwab-Stone, M. E., Ayers, T. S., Kaspro, W., Voyce, C., Barone, C., Shriver, T., & Weissberg, R. P. (1995). No Safe Haven: A Study of Violence Exposure in an Urban Community. *Journal of the American Academy of Child & Adolescent Psychiatry, 34*(10), 1343–1352. doi:10.1097/00004583-199510000-00020
- Seedat, M., Van Niekerk, A., Jewkes, R., Suffla, S., & Ratele, K. (2009). Violence and injuries in South Africa: prioritizing an agenda for prevention. *The Lancet, 374*(9694), 1011–1022. doi:10.1016/S0140-6736(09)60948-X
- Seedat, S., Nyamai, C., Njenga, F., Vythilingum, B., & Stein, D. J. (2004). Trauma exposure and post-traumatic stress symptoms in urban African schools Survey in CapeTown and Nairobi. *The British Journal of Psychiatry, 184*(2), 169–175. doi:10.1192/bjp.184.2.169
- Shonk, S. M., & Cicchetti, D. (2001). Maltreatment, competency deficits, and risk for academic and behavioral maladjustment. *Dev Psychol, 37*(1), 3–17.
- Singer MI, Anglin T, Song L, & Lunghofer L. (1995). Adolescents' exposure to violence and associated symptoms of psychological trauma. *JAMA, 273*(6), 477–482. doi:10.1001/jama.1995.03520300051036
- Smigelsky, M., Aten, J., Gerberich, S., Sanders, M., Post, R., Hook, K., ... Boan, D. (2013). *Cost of Trauma in Sub-Saharan Africa: Review of Origins, Estimation Methods, and Interventions*. Portland, OR. Retrieved from <http://www.wheaton.edu/HDI/~media/Files/Centers-and-Institutes/HDI/Cost%20of%20Trauma%20in%20Sub-Saharan%20Africa%20Report.pdf>
- Spinazzola, J., Blaustein, M., & van der Kolk, B. A. (2005). Posttraumatic stress disorder treatment outcome research: The study of unrepresentative samples? *J Trauma Stress, 18*(5), 425–36. doi:10.1002/jts.20050
- Teicher, M. H., Andersen, S. L., Polcari, A., Anderson, C. M., Navalta, C. P., & Kim, D. M. (2003). The neurobiological consequences of early stress and childhood maltreatment. *Neuroscience and Biobehavioral Reviews, 27*(1-2), 33–44.
- Terr, L. C. (1991). Childhood traumas: an outline and overview. *The American Journal of Psychiatry, 148*(1), 10–20.
- Turner, H. A., Finkelhor, D., & Ormrod, R. (2010). The Effects of Adolescent Victimization on Self-Concept and Depressive Symptoms. *Child Maltreatment, 15*(1), 76–90. doi:10.1177/1077559509349444
- Van der Kolk, B. A. (2003). The neurobiology of childhood trauma and abuse. *Child Adolesc Psychiatr Clin N Am, 12*(2), 293–317, ix.

- Van der Kolk, B. A. (2009). [Developmental trauma disorder: towards a rational diagnosis for chronically traumatized children]. *Prax Kinderpsychol Kinderpsychiatr*, 58(8), 572–86.
- Van der Kolk, B. A. (2005). Developmental trauma disorder. *Psychiatric Annals*, 35(5), 401–408.
- Vogt, D. S., King, D. W., & King, L. A. (2007). Risk pathways for PTSD: Making sense of the literature. In M. J. Friedman, T. M. Keane, & P. A. Resick (Eds.), *Handbook of PTSD: Science and practice* (pp. 99–115). New York, NY, US: Guilford Press.
- WHO | Child maltreatment. (2013). WHO. Retrieved March 19, 2014, from <http://www.who.int/mediacentre/factsheets/fs150/en/>
- Wilson, J. P. (2007). *The Lens of Culture: Theoretical and Conceptual Perspectives in the Assessment of Psychological Trauma and PTSD*. Springer. Retrieved from [http://link.springer.com/chapter/10.1007/978-0-387-70990-1\\_1](http://link.springer.com/chapter/10.1007/978-0-387-70990-1_1)
- Violence against Children in Kenya: Findings from a 2010 National Survey. Summary Report on the Prevalence of Sexual, Physical and Emotional Violence, Context of Sexual Violence, and Health and Behavioral Consequences of Violence Experienced in Childhood. Nairobi, Kenya: United Nations Children’s Fund Kenya Country Office, Division of Violence Prevention, National Center for Injury Prevention and Control, U.S. Centers for Disease Control and Prevention, and the Kenya National Bureau of Statistics, 2012.