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Relationship of Attachment, Acute Stress and Post Traumatic Stress Symptoms among Children Living in Residential Care

by

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I dedicate this humble effort of mine to my adoring parents, Mohammad Athar Javed and Mrs. Kishwar Sultana, and my in-laws, Dr. Habib Qureshi and Sabahat Qureshi. My Loving Brothers Asfand Yar, Shaher Yar and Sister Sadaf Amjad, My caring Husband Haaris Habib and My Beloved Friends

CERTIFICATE OF APPROVAL

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Abstract

The study examined the relationship between attachment, acute stress, and post-traumatic stress symptoms (PTSS) among children in residential care, focusing on the mediating role of acute stress. The sample included 202 children (177 males, 25 females) aged 9–12, randomly selected from orphanages in Islamabad and Rawalpindi. Data were collected using the UCLA PTSD RI DSM-V, Acute Stress Checklist, and Attachment Style Classification Questionnaire. Analyses were conducted using SPSS-21 and Mplus 7. Results showed a significant positive correlation between insecure attachment and acute stress ($r = .383, p = .000$) and insecure attachment and PTSS ($r = .343, p = .000$). Additionally, acute stress was positively correlated with PTSS ($r = .427, p = .000, p < .01$). Mean scores indicated higher levels of acute stress ($M = 28.07, SD = 10.10$) and PTSS ($M = 45.22, SD = 21.79$) in children with insecure attachment. Mediation analysis revealed that insecure attachment significantly predicted acute stress ($SE = 0.183, p < .001$), while acute stress significantly predicted PTSS ($SE = 0.183, p < .001$). Secure and avoidant attachments were not significant predictors of acute stress. R-squared values (acute stress: 0.210, PTSS: 0.190) indicated a moderate model fit. Findings suggest that insecure attachment increases vulnerability to acute stress and PTSS, emphasizing the need for interventions to enhance attachment security to reduce trauma-related symptoms in children living in residential care.

Keywords: Attachment, Attachment Styles, Acute Stress, PTSD, PTSS

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Abbreviations

PTSS Post Traumatic Stress Symptoms

PTSD Post Traumatic Stress Disorder

Chapter 1

Introduction

1.1 Background of the Study

Attachment plays a critical role in the development of acute stress and post-traumatic stress symptoms (PTSS) in children living in residential care (Bryant, 2022). According to attachment theory, the quality of a child's attachment to their caregiver has a significant impact on stress regulation and coping mechanisms (Bowlby, 1944). Both attachment and trauma affect the physiological processes underlying fear and its management, and attachment influences the body's capacity to heal after experiencing trauma (Charuvastra and Cloitre, 2007)

In residential care, the relational environment is extremely fragile, making it more difficult to provide the context for the development of secure attachments than in foster care (West et al., 2020). However, due to their extreme challenges, foster care is not an option for some children and young people (West et al., 2020). Others favor residential care due to uncertainty and anxiety about intimate relationships or out of loyalty to their own families (Molina-Mula and Gallo-Estrada, 2020). Siblings may sometimes be best kept together through residential care (Bryant et al., 2017). Frequently, children in residential care exhibit very difficult behavior because they have experienced very negative things in their families (Fel et al., 2022). While an attachment figure who is frightening or unavailable can make a child's fears worse, an available attachment figure can help a child cope with

stress. Moreover, children might associate danger to the attachment figure with danger to themselves (Chu and Lieberman, 2010).

Children in residential care frequently experience adverse situations such as early trauma, neglect, and unstable caregiving, which heighten their risk for psychological disorders like separation anxiety, low self-esteem, and Post-Traumatic Stress Symptoms (PTSS) (Bagga et al., nd). Acute stress, a strong response to perceived threats, can exacerbate vulnerability and disrupt emotional and behavioral regulation, linking trauma exposure to PTSS development (McWey and Acock, 2010). This stress response activates the hypothalamic-pituitary-adrenal (HPA) axis, leading to increased cortisol and stress hormone release (Gunnar and Vazquez, 2001). While acute stress is a normal reaction to immediate danger, chronic exposure can dysregulate the HPA axis, increasing sensitivity to stress and the likelihood of developing PTSS (Loman and Gunnar, 2009).

These children may be placed in Children's Homes or foster families for different lengths of time before being adopted, returned to their biological families or even staying in alternative care until they reach adulthood (Quiroga and Hamilton-Giachritsis, 2015). According to a review of institutional care by Hamilton-Giachritsis and Garcia (2014), the adverse effects of institutional care on future development have been extensively researched, with the impact being greatest during the first 3 years of life.

Many families and communities have experienced increased unemployment, migration for work, family breakdown, and single parenthood as a result of the changes, which has led to an increase in institutional care in countries undergoing economic transition (Carter, 2005). Poverty appears to be the primary underlying cause of institutionalizing children in these nations, with both single parents and parents of large, unplanned families finding it difficult to manage poverty (Macera et al., 2014).

Children reaction to current stressors can either reduce or increase the effects of past trauma. Without sufficient support or coping mechanisms, children who endure prolonged stress may move from acute stress reactions to the emergence of

maladaptive reactions, which include hyper arousal, intrusive memories, or avoidance behaviors essential elements of posttraumatic stress disorder (PTSS) (Elia, 2023). In early childhood, orphans are more vulnerable to experience trauma, neglect, abuse, aggression, and violence, particularly between the ages of 5 and 10 years (Schechter and Willheim, 2009) . Insecure attachment also contributes to acute stress in children, which can further exacerbate the risk of PTSS (Godoy et al., 2018).

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Research has shown that de-attachment trauma can force children into developmental pathway that increases their vulnerability to PTSS (Ainsworth et al., 1978). De-Attachment and trauma have similar to stress response (Ensink et al., 2023). Attachment anxiety is associated with hyper-activating attachment strategies, such as heightened awareness of threatening information, heightened emotional distress in reaction to stressful situations, rumination of threat-related issues, and elevated threat perceptions and assessments (Ogle et al., 2016).

Acute stress in children in residential care frequently results from a variety of circumstances, including abrupt schedule changes, peer conflict, or exposure to institutional guidelines and regulations (Marion et al., 2024). Children's coping mechanisms may be overwhelmed by the frequency and severity of acute stressors in residential care settings, especially if they have a history of trauma and attachment disorders. Stress response heightens the effects of trauma and raises the possibility of long-term psychological consequences like post-traumatic stress disorder (PTSD) (Yohannan and P, 2024).

The biological foundations of PTSD are rooted in disruptions in brain development, cognitive processes, and the regulation of neurotransmitters and stress-related hormones, along with emerging genetic and epigenetic influences. The serotonin system plays a key role in classically conditioned responses, contributing to Cluster B symptoms of re-experiencing trauma. In this process, a trauma trigger (conditioned stimulus) provokes intrusive memories (unconditioned stimulus). Additionally, neurotransmitter imbalances involving GABA, dopamine, and norepinephrine may underlie other Cluster B symptoms, such as nightmares. Meanwhile, Cluster C avoidance symptoms, including anhedonia and emotional numbness, are likely associated with reduced dopamine availability and heightened opioid system activity (De Bellis and Zisk, 2014).

While extensive research has highlighted the detrimental effects of institutional care on children's psychological well-being, particularly in relation to attachment insecurity and PTSS, gaps remain in understanding the specific mechanisms linking attachment disturbances with acute stress responses in residential care settings (Bryant, 2023). The interplay between early trauma, insecure attachment, and neurobiological dysregulation underscores the heightened vulnerability of these children to maladaptive stress responses (Granot and Mayseless, 2001). However, further research is needed to explore how different caregiving environments within residential care such as structured versus unstructured settings modulate these stress responses (West et al., 2020). Additionally, while attachment insecurity has been linked to emotion regulation deficits, the long-term trajectory of these maladaptive coping mechanisms and their impact on resilience remains underexplored (Mikulincer et al., 2004). Addressing these gaps could inform more targeted management aimed at mitigating the adverse psychological outcomes associated with residential care.

1.2 Rationale

The interplay between attachment, acute stress, and post-traumatic stress symptoms (PTSS) among children living in residential care is a critical area of research, particularly given the unique vulnerabilities faced by this population (Ainamani

et al., 2020). Attachment theory posits that secure attachments formed in early life are crucial for emotional and psychological well-being. However, children in residential care often experience disrupted attachments, which can exacerbate their susceptibility to acute stress and subsequent PTSS(Mikulincer and Shaver, 2012). This is particularly relevant in the context of Pakistani cultural dynamics, where familial structures and community support systems may differ significantly from those in Western contexts, potentially influencing the attachment styles and stress responses of these children (Zaman, 2013).

Research indicates that insecure attachment is associated with heightened PTSS, as children with insecure attachments may lack the necessary coping mechanisms to deal with traumatic experiences effectively (Cushing et al., 2023). In the context of residential care, where children may have experienced trauma prior to their placement, the lack of a secure attachment figure can lead to increased vulnerability to acute stress. Acute stress may serve as a mediator between attachment and PTSS, suggesting that children with insecure attachments are more likely to experience acute stress responses that can lead to long-term psychological issues (Shechory and Sommerfeld, 2007). However, there are limited literature comprehensive studies that specifically examine acute stress as a mediator in the relationship between attachment and PTSS among children in residential care settings, particularly for younger children, which further complicates our understanding of these dynamics (Kiess et al., 1995).

Moreover, the existing literature predominantly focuses on adolescents and adults, with limited attention given to younger children, especially those aged 9 and below. This age group is often overlooked in studies assessing attachment, acute stress, and PTSS, despite being a critical developmental stage where the foundations of attachment are formed (Lahousen et al., 2019). The absence of research specifically targeting this demographic in residential care settings highlights a significant gap in the literature, necessitating further investigation into how these variables interact in younger populations.

Additionally, the unique cultural dynamics in Pakistan may further influence the attachment styles and stress responses of children in residential care. Cultural

norms regarding family structure, community support, and the stigma surrounding mental health can shape how children perceive and respond to stress and trauma Ahmad and Koncsol (2022). For instance, Children in Pakistani residential care may experience additional layers of stress due to cultural expectations and the perceived failure of familial bonds, which can heighten feelings of insecurity and anxiety (Ikram et al., 2022). In Pakistani culture, the family unit holds significant importance, and children are often expected to maintain strong familial connections. When children are placed in residential care, they may feel a sense of loss or failure, which is compounded by societal expectations of family integrity (Thakur et al., 2016). This cultural context can contribute to increased emotional distress, as children may struggle with feelings of abandonment and a fear of being judged by their communities for not living within a traditional family structure (Rodriguez, 2024). The interplay of these cultural factors with attachment and stress responses underscores the need for culturally sensitive approaches in addressing the mental health needs of children in residential care (Ikram et al., 2022)

In conclusion, the relationship between attachment, acute stress, and PTSS among children in residential care is complex and multifaceted. The current literature highlights considerable gaps, particularly concerning younger children and the specific context of residential care in Pakistan. There is a lack of age-specific research, with much of the existing studies focusing on older children or adults, and limited attention given to younger children, especially those in the 9-12 age group (Malik and Marwaha, 2022). Additionally, the cultural context of Pakistan has not been adequately explored, particularly how societal factors like family structures and expectations influence the emotional and psychological well-being of children in residential care. There is also insufficient research on gender differences in how stress and trauma responses manifest specifically in Pakistani residential care settings. Furthermore, gaps exist in understanding effective interventions and professional training for caregivers in these settings, which limits insights into how best to support children dealing with attachment issues, acute stress, and PTSS. Finally, more longitudinal studies are needed to examine the long-term effects of attachment disruptions and trauma exposure in residential care, particularly for

younger children in Pakistan. These gaps highlight the need for more targeted research to address the unique challenges faced by children in residential care in this context.

Due to the lack of reliable, caring caretakers, orphaned or abandoned children frequently experience severe difficulties in developing stable attachments (Zeanah et al., 2005). According to UNICEF (2020), these children are often placed in foster care or institutional settings, where they may not receive as much individualized care, attention, or emotional support. Insecure attachment styles resulting from a lack of strong attachment figures make children more prone to acute stress and increase their risk of developing PTSS (Zeanah et al., 2005).

Although attachment theory and PTSD have been extensively studied independently, there is a gap in research that explicitly examines how attachment reduces the effect of acute stress on PTSD symptoms in orphans compared to non-orphans (Steinberg et al., 2013). This gap emphasizes the need focused research to better understand these dynamic and to develop interventions specifically designed to help both orphaned and non-orphaned children.

1.3 Theoretical Framework

According to John Bowlby's attachment theory, early relationships with primary caregivers serve as the foundation for later emotional and social development. Secure attachment, defined as responsive and consistent caregiving, gives children a sense of safety and security (Bowlby, 1982). Securely attached children exhibit adaptive emotion regulation, such as effectively managing distress, expressing emotions appropriately, and developing resilience. They explore their environment with confidence, establish strong problem-solving skills, and use constructive coping mechanisms to manage stress and trauma (Cassidy and Shaver, 2008).

Insecure attachment, characterized by inconsistent or neglectful caregiving, can cause anxiety, avoidance, disorganization, maladaptive behaviors, and difficulties in emotion regulation (Ainsworth et al., 1978). Children with insecure attachment struggle with emotion regulation, often exhibiting heightened emotional reactivity,

impulsivity, difficulty trusting others, and reliance on maladaptive coping strategies (e.g., avoidance, aggression, or emotional suppression). They are more prone to stress-related disorders, anxiety, and post-traumatic stress symptoms (PTSS) due to their inability to regulate emotions effectively (Pearce et al., 2017).

Avoidant attachment, a subtype of insecure attachment, develops when caregivers are emotionally unavailable or dismissive. Children with avoidant attachment tend to suppress emotions, avoid seeking comfort, and develop maladaptive independence (Mikulincer and Shaver, 2012). They may struggle with emotional numbness, social withdrawal, and difficulty forming close relationships, which can lead to poor stress management and increased vulnerability to PTSS. Their emotion regulation is often characterized by emotional suppression and detachment, making it harder for them to seek support in stressful situations.

The "fight or flight" response, also known as the acute stress response, involves physical and mental reactions to sudden threats (Selye, 1956). Acute stress activates the hypothalamic-pituitary-adrenal (HPA) axis, leading to the release of stress hormones such as cortisol (Quiroga and Hamilton-Giachritsis, 2015). Chronic activation of the stress response system can contribute to the development of PTSS, particularly in children with insecure attachment, by heightening anxiety and impairing emotion regulation (McWey and Acock, 2010).

Trauma theory explores how traumatic events, such as loss of a caregiver or exposure to violence, can disrupt development and result in long-term psychological effects, including PTSS. Individuals with insecure and unstable attachment relationships often lack consistent, sensitive caregivers, which hinders their ability to manage stress and increases their risk of psychopathologies (Cassidy and Shaver, 2008). Modern theories propose that attachment interacts with psychosocial, contextual, and biological factors, shaping different developmental pathways (Mikulincer and Shaver, 2012).

Acute stress can worsen PTSS risk, particularly in children with insecure attachment, but it is not the only factor. Maladaptive coping mechanisms, emotional dysregulation, severity of trauma, social support, and genetic predispositions also influence PTSS outcomes. While acute stress is critical, it does not fully explain

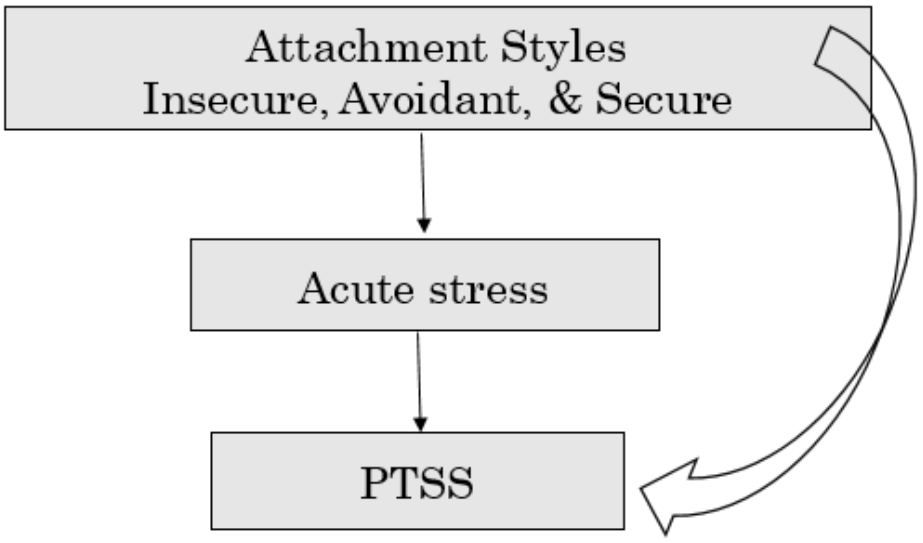

FIGURE 1.1: figure 1

the development of PTSS, which involves multiple psychological, social, and environmental factors.

Van der Kolk (2014) suggests that attachment type and coping capacity influence PTSS severity. Children with secure attachment have effective stress-reduction techniques and adaptive coping skills, helping them manage acute stress better (Sheidow et al., 2013). Conversely, children with insecure attachment, particularly orphans who lack consistent care, are more prone to dysregulated stress reactions, maladaptive coping, and increased vulnerability to PTSS (Zeanah et al., 2005).

Supportive relationships and attachment security influence the duration and severity of acute stress responses (Cassidy and Shaver, 2008). Secure attachment fosters adaptive behaviors, resilience, and regulated stress responses, reducing PTSS risk. In contrast, insecure attachment leads to maladaptive coping, dysregulated stress responses, and higher PTSS vulnerability (Pearce et al., 2017).

Research objective 1 To investigate the relationship between attachment styles and acute stress symptoms among children living in residential care.

Research objective 2 To examine the relationship between attachment style and post-traumatic stress symptoms (PTSS) among children living in residential care.

Research objective 3 To explore the mediating effect of acute stress on the relationship between attachment style and PTSS among children living in residential care.

1.4 Hypotheses

1. Children living in residential care with insecure attachment patterns will exhibit higher levels of acute stress symptoms.

2. Children living in residential care with insecure attachment patterns will exhibit higher levels of PTSS.

3. Children in residential care with secure attachment will be negatively correlated with acute stress.

4. Children living in residential care with Secure attachment will be negatively correlated with PTSS.

5. Children living in residential care with avoidant attachment will exhibit higher levels of PTSS.

6. Children with avoidant attachment will show higher levels of acute stress symptoms.

7. Acute stress will partially mediate the relationship between attachment styles and PTSS, such that children with insecure and avoidant attachment patterns will experience higher levels of acute stress, which in turn will contribute to the development of PTSS. Conversely, children with secure attachment will experience lower levels of acute stress, reducing the development of PTSS.

Chapter 2

Literature Review

Children living in a residential care are exposed to variety of stressors and traumatic events such as separation from parents, bullying, physical, emotional, or sexual abuse and neglect (Petersen et al., 2014). Due to repeated attachment insecurity and exposure to trauma, there is a further need to address the state of mental health resources offered to children living in residential care who have experienced traumatic events (RAN, nd). While there is great deal of literature and research on attachment insecurity and post traumatic symptoms.

This section will explore the psychological impact of attachment insecurity and trauma on children in residential care, emphasizing how these factors contribute to the development of acute stress and post-traumatic stress symptoms (PTSS). It will also examine the neurobiological mechanisms underlying stress responses, including disruptions in emotion regulation, neurotransmitter activity, and stress hormone regulation. Additionally, the section will discuss the availability and effectiveness of mental health resources for children in residential care, highlighting existing gaps and the need for targeted management to support their psychological well-being.

2.1 Attachment

According to Bowlby and others, children are born with an innate desire to form attachments with their caregivers, despite the behavioral theories of attachment

suggesting that attachment is a learned (Bowlby, 1979).

John Bowlby's attachment theory posits that children are biologically programmed to form emotional bonds with their primary caregivers, and these attachments play a critical role in the child's survival and development. Bowlby (1969) argued that attachment behaviors, such as seeking proximity to the caregiver, are an evolutionary adaptation that increases a child's chances of survival by ensuring protection and care. He believed that these early relationships with caregivers create internal working models, mental representations of self and others, that guide the child's emotional responses, behavior, and relationships throughout life (Bowlby, 1982).

Bowlby's ideas challenge earlier behavioral theories of attachment, which viewed attachment as a learned response. In contrast, Bowlby proposed that attachment is innate, with infants coming into the world with the capacity to form bonds with their caregivers. He noted that the attachment system is activated by threats or stress, ensuring that the child seeks comfort and safety from the caregiver (Bowlby, 1982). This concept aligns with the work of Ainsworth et al. (1978), who identified different attachment styles based on how infants respond to separation and reunion with their caregiver. Secure attachment, formed when caregivers are responsive to the child's needs, fosters healthy emotional development, while insecure attachment, arising from inconsistent or unresponsive caregiving, can lead to difficulties in emotional regulation and interpersonal relationships.

Research supports Bowlby's assertion that early attachment has lasting effects. For instance, studies have shown that securely attached children tend to have better emotional regulation, higher self-esteem, and healthier social relationships (Mikulincer and Shaver, 2005). On the other hand, children with insecure attachment are at greater risk for mental health problems, including anxiety, depression, and difficulties forming trust-based relationships (Dozier et al., 2001). Furthermore, attachment is not only central to childhood development but also has a significant impact on adult relationships and emotional functioning, as secure attachment patterns in childhood tend to persist into adulthood, influencing how individuals handle stress and form intimate relationships(Mikulincer and Shaver, 2005).

In summary, Bowlby's attachment theory suggests that the bond between an infant and their caregiver is biologically driven, not learned, and has a profound impact on the child's survival and psychological development. Secure attachment fosters resilience and healthy relationships, while insecure attachment can lead to emotional difficulties and lasting challenges in social and emotional functioning.

2.1.1 Attachment in Children

The bond that forms between a newborn and their primary caregiver during the first year of life is crucial for emotional and psychological development, serving as the foundation for all future relationships. Bowlby (1982) emphasized that this early attachment bond is essential for the infant's sense of security and plays a key role in shaping their expectations of others in later relationships. Infants rely on their caregivers as their primary source of safety, reassurance, and comfort. When this bond is disrupted, even for short periods, infants typically display intense distress and anxiety, indicating the profound importance of the attachment relationship for their well-being (Ainsworth et al., 1978).

Ainsworth and colleagues (1978) introduced the concept of the Strange Situation to study attachment, highlighting the ways in which infants respond to brief separations and reunions with their caregiver. The study demonstrated that securely attached infants seek proximity to their caregivers when distressed and are easily soothed upon reunion. In contrast, insecurely attached children, such as those with avoidant or anxious attachment styles, may show less reliance on their caregiver or may have difficulty being comforted, revealing how early attachment experiences influence emotional regulation and coping mechanisms. Secure attachment, therefore, allows the child to build a framework for trust, helping them feel more confident and capable of exploring their environment and forming relationships with others (Bowlby, 1988).

Furthermore, the attachment bond provides a model for how children view and interact with the world around them. This "internal working model" of attachment influences how children perceive relationships, how they behave in social contexts, and how they handle stress and emotional challenges later in life (Bretherton,

1992). Children who experience consistent, responsive caregiving are more likely to develop secure attachment patterns, which support healthy emotional development, while those who face inconsistent or unresponsive caregiving may develop insecure attachment patterns, which can result in challenges in emotional regulation, relationship difficulties, and increased vulnerability to mental health issues (Main and Solomon, 1990).

The early attachment bond plays a critical role in a child's development, shaping their emotional responses, relationship expectations, and coping strategies. The security provided by caregivers in infancy forms the basis for the child's understanding of the world and future relationships, making attachment a cornerstone of psychological well-being across the lifespan.

Even though attachment is important at every stage of life, the unique bond that forms between a newborn and their primary caregiver during the first year of life is typically regarded as the framework for later relationship experiences (Bowlby, 1982). Newborns view this bond as their primary source of security, reassurance, and enjoyment, and they exhibit severe distress when this bond is broken, even for a short time (Ainsworth et al., 1978). Children will seek out their attachment figures and comfort when they are feeling nervous or upset. Children typically use the experiences they have had with their caregivers to build a well-defined and structured plan for achieving this level of connection(Mikulincer and Shaver, 2018).

2.1.2 Attachment in Residential Care

Attachment theory emphasizes that early relationships with caregivers are fundamental to emotional and psychological development. However, children in residential care often experience multiple placements, inconsistent caregiving, and disruptions in attachment, which can have long-term consequences for their emotional well-being (Miranda et al., 2019). Unlike children in foster care, those in residential care tend to have lower-quality relationships with their caregivers, making it more difficult for them to form stable and secure attachments (Quiroga and Hamilton-Giachritsis, 2015). This instability contributes to heightened anxiety

and insecurity, which can further exacerbate difficulties in forming and maintaining relationships (Rodriguez, 2024).

Children in residential care settings frequently struggle with emotional regulation, behavioral problems, and low self-esteem, largely due to attachment disruptions (Da Silva Ribeiro Gameiro et al., 2023). The unpredictable nature of caregiving in these environments prevents children from developing a secure base, a key element of Bowlby's attachment theory (Bowlby, 1988)Bowlby1988. Without consistent and responsive caregivers, children may adopt maladaptive attachment strategies, such as avoidance or hyper-vigilance, as coping mechanisms (Mikulincer and Shaver, 2016). This can lead to emotional dysregulation, difficulty trusting others, and an increased risk of psychological disorders, including post-traumatic stress disorder (PTSD) and anxiety (Bender et al., 2014).

Furthermore, research suggests that the institutional environment of residential care can limit the formation of deep, personal bonds between children and caregivers. Staff members often rotate shifts, making it challenging for children to establish continuity in relationships (Dozier et al., 2001). This contrasts sharply with family-based settings, where consistent caregiving provides emotional security and fosters a sense of belonging. Children in residential care may therefore develop attachment-related challenges that persist into adulthood, influencing their ability to form stable romantic relationships, regulate emotions, and develop a sense of self-worth (Hawk et al., 2018).

Given these challenges, there is a pressing need to enhance the caregiving environment in residential care settings to mitigate attachment disruptions. Trainings that promote stable, nurturing relationships such as training caregivers in attachment-focused practices can improve emotional outcomes for children (Doyle and Cicchetti, 2017). By recognizing the profound impact of attachment in residential care, policies and practices can be tailored to foster secure attachments and better psychological outcomes for children in these settings.

Studies show that children receiving care in institutions are more likely than those receiving family-based care to develop attachment issues and related mental health problems (Hawk et al., 2018). Non-orphaned children, on the other hand, usually

have the opportunity to form stable relationships with their caregivers, providing a foundation for resilience and healthy development. According to Cassidy and Shaver (2016), secure attachment relationships help children handle stress more effectively, reducing the risk of PTSS by acting as a protective factor against the negative effects of acute stress.

2.1.3 Attachment Styles in Pakistani Culture

In Pakistan, children in residential care face disrupted attachment patterns due to frequent changes in caregivers and the institutional nature of their environment(Khalid et al., 2022). High staff turnover, rotating caregiver shifts, and multiple transfers between institutions create instability, preventing the formation of secure attachments. Additionally, limited individualized attention, policy restrictions on caregiver-child relationships, and social stigma further hinder emotional bonding. These factors contribute to attachment insecurity, emotional distress, and long-term psychological challenges, making it difficult for children to develop stable and trusting relationships (Khalid et al., 2022). Research indicates that children who experience instability in their caregiving relationships are more likely to develop insecure attachment styles (Khalid et al., 2022). These insecure attachments can manifest in various emotional and behavioral issues, including anxiety, depression, and difficulties in social interactions (Lee and Hankin, 2009).

One of the critical factors contributing to these disturbed attachments is the cultural stigma associated with institutionalization in Pakistan. Many families view residential care as a last resort, often leading to feelings of shame and rejection for the children involved (Khalil et al., 2019). This stigma can exacerbate feelings of abandonment and unworthiness, making it even more challenging for children to form trusting relationships with caregivers. Additionally, the lack of family support further complicates their ability to develop secure attachments. In many cases, children in residential care may have limited or no contact with their biological families, which can intensify their feelings of isolation and insecurity (Khalil et al., 2019). The combination of societal stigma, emotional rejection, and insufficient familial connections creates a deeply unsettling environment for these

children, further reinforcing attachment difficulties and increasing their vulnerability to psychological distress.

Cultural diversity in Pakistan adds another layer of complexity to the attachment process. Children from various cultural backgrounds may have different expectations and experiences regarding relationships and caregiving. This diversity can create additional barriers to forming secure attachments, as caregivers may not fully understand or appreciate the unique needs of each child (Schwaiger et al., 2021). The absence of culturally sensitive practices in residential care can lead to misunderstandings and further emotional distress for the children. For instance, a study on Pakistani orphanage caregivers highlighted that cultural factors, such as the perception of orphans as financial burdens, can influence caregiving practices and the emotional well-being of children in care (Khalil et al., 2019).

Attachment plays a fundamental role in shaping various aspects of an individual's life beyond emotional security. Secure attachment in childhood contributes to better mental health outcomes, including lower risks of anxiety, depression, and emotional dysregulation (Sroufe, 2005). Conversely, insecure attachment has been linked to higher susceptibility to stress, difficulty in emotional regulation, and increased vulnerability to psychological disorders (Mikulincer and Shaver, 2016).

Moreover, attachment influences social relationships and interpersonal skills, affecting how individuals form and maintain friendships, romantic relationships, and professional connections (Fraley and Shaver, 2000). Children with secure attachments are more likely to develop strong social skills, empathy, and resilience, whereas those with insecure attachments may struggle with trust and emotional intimacy.

Attachment also impacts academic performance and cognitive development, as secure attachments provide children with a strong emotional foundation that enhances their ability to focus, explore, and engage in learning (Granot and Mayseless, 2001). In contrast, children with attachment disruptions may experience learning difficulties, lower self-esteem, and a lack of motivation. Furthermore, attachment styles have long-term implications for physical health and stress regulation. Research suggests that individuals with insecure attachment styles are more

prone to chronic stress, weakened immune function, and higher risks of lifestyle-related illnesses due to maladaptive coping mechanisms (McWilliams and Bailey, 2010).

In the context of residential care, where children already face instability and adversity, prioritizing attachment-focused interventions can significantly improve their overall well-being, social development, and future life prospects.

2.1.4 Attachment and Acute Stress

The way children react to stress is greatly influenced by their attachment relationships (Bowlby, 1951). Insecure attachment can worsen stress reactions, whereas secure attachment promotes resilience and effective coping mechanisms (Ainsworth et al., 1978). Organized attachment enables children to seek out connectedness to caregivers in times of stress, which can help regulate their emotional reactions(Mikulincer and Shaver, 2012). In contrast, disorganized attachment can lead to maladaptive coping strategies and increased stress due to contradictory behaviors (Cassidy and Shaver, 2008).

Research indicates that children with insecure attachment styles are more likely to respond to environmental challenges with acute stress (National Institute for Health and Care Excellence (for Health and , NICE). Maternal attachment styles significantly impact parental stress levels, which in turn affect how children respond to stress and regulate their emotions (Jones et al., 2014). This suggests that the attachment dynamics in residential care environments may significantly influence children's capacity to cope with sudden stress (Ogle et al., 2016).

Children with secure attachments demonstrate better emotional regulation, which is essential for coping with chronic stress. They develop effective coping mechanisms that enable them to handle stressors with resilience. In contrast, children with avoidant or ambivalent attachment styles often experience difficulties in regulating their emotions, making them more reactive to stress and less capable of self-soothing (Abtahi and Kerns, 2017). This difficulty in emotional regulation not only heightens their vulnerability to stress but also increases their risk of anxiety and other psychological disorders. Given these challenges, it is crucial to examine

how attachment insecurity contributes to long-term mental health concerns, particularly the development of post-traumatic stress symptoms (PTSS) in children residing in residential care.

2.1.5 Acute Stress as a Mediator

Recent research underscores the pivotal role of stress as a mediator in the association between attachment insecurity and post-traumatic stress symptoms (PTSS). Attachment theory suggests that securely attached individuals develop adaptive emotional regulation strategies, which enable them to manage stress effectively. In contrast, individuals with insecure attachment styles especially anxious or avoidant attachment demonstrate maladaptive stress responses, increasing their susceptibility to trauma-related disorders(Bowlby, 1982).

Empirical evidence highlights that insecure attachment heightens stress sensitivity, thereby elevating the risk of PTSS following exposure to trauma (Ogle et al., 2015). Malan et al. (2017) found that individuals with attachment anxiety were more likely to perceive traumatic events as central to their identity, appraising them as overwhelmingly distressing. This cognitive appraisal process was identified as a mediating factor between attachment insecurity and PTSS severity, emphasizing the role of stress in linking attachment-related vulnerabilities to trauma-related psychopathology.

Furthermore, a meta-analysis by MacDonald et al. (2019) reinforced the strong connection between attachment insecurity and PTSS in children and adolescents. Their findings indicate that the way individuals regulate stress significantly influences the progression of trauma-related symptoms. Children with insecure attachment styles exhibit heightened physiological and psychological stress responses, predisposing them to chronic PTSS.

On a neurobiological level, the dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis plays a crucial role in this mediation process. Research suggests that disruptions in early attachment relationships contribute to HPA axis dysregulation, resulting in elevated cortisol levels and prolonged stress reactivity following trauma exposure (Cassidy et al., 2013). This prolonged activation of the stress

response system increases the risk of intrusive memories, hyperarousal, and emotional numbing key symptoms of PTSS (Schauss et al., 2022).

Additional evidence from studies on children in residential care supports this mediational model. Woodhouse et al. (2015) demonstrated that chronic exposure to stress, such as inconsistent caregiving and peer victimization, amplified the relationship between attachment insecurity and PTSS severity. Their findings suggest that the absence of stable, supportive relationships in institutional settings compounds the adverse effects of stress, heightening vulnerability to trauma-related disorders.

Neuroimaging studies further validate these associations, showing that insecurely attached children display excessive activation of the amygdala a brain region responsible for processing fear and stress. Research by (Schechter and Willheim, 2009) found that heightened amygdala reactivity in insecurely attached children leads to increased sensitivity to perceived threats, reinforcing the persistence of PTSS symptoms. These findings highlight stress exposure as a crucial mechanism through which attachment insecurity translates into long-term trauma-related pathology.

2.1.6 Impact of Acute Stress in Pakistan

Children in residential care often experience acute stress, largely due to the absence of secure attachment figures and the instability of institutional living. Attachment theory emphasizes that secure attachments provide a foundation for emotional regulation, resilience, and coping strategies (Bowlby, 1982). However, many children in residential settings have experienced early disruptions in caregiving due to abuse, neglect, or family separation, making them more vulnerable to acute stress and its psychological consequences (Ikram et al., 2022). Without the consistent presence of an attachment figure to provide safety and comfort, these children struggle to regulate their distress, often exhibiting maladaptive behaviors such as aggression and withdrawal (Moini et al., 2021).

The impact of attachment disruptions on stress regulation is further complicated by cultural influences. In Pakistan, social norms around emotional expression

may prevent children from seeking support or communicating their distress, leaving them without the external regulation typically provided by a caregiver (Frost et al., 2024). Additionally, mental health stigma may hinder caregivers' ability to recognize and address acute stress in these children, perpetuating a cycle of attachment insecurity and psychological distress (Nelson et al., 2020). This lack of attuned caregiving prevents children from developing self-soothing strategies, further reinforcing attachment difficulties.

Compared to their peers in family-based care, children in residential institutions report significantly higher levels of acute stress (Schauss et al., 2022). This is likely due to the inherent instability of institutional environments, where frequent changes in caregivers prevent the formation of secure attachments. Without a stable attachment base, children face difficulties managing stress, which has been linked to internalizing mental health disorders such as anxiety and depression (Sheidow et al., 2013). Over time, the cumulative impact of stress in residential care can increase the risk of post-traumatic stress symptoms (PTSS), underscoring the crucial role of attachment security in buffering against psychological distress (Peterson, 2018).

By addressing attachment disruptions and fostering secure relationships within residential care, it may be possible to mitigate the effects of acute stress and improve mental health outcomes for institutionalized children. Caregiver training in attachment-based approaches and the promotion of stable caregiving relationships could offer essential emotional support, helping children develop healthier stress regulation mechanisms and a more secure sense of self.

2.1.7 PTSS and Attachment

A child's capacity to recover from trauma is believed to depend on the strength of their attachment to their caregiver and the caregiver's ability to provide sensitive and responsive support during times of distress (Petersen and Elklit, 2013). According to Pearce et al., insecure attachment may act as a mediator in the relationship between trauma and PTSS, as fearful attachment styles are highly linked to elevated paranoia and other psychotic experiences (Pearce et al., 2017).

Children in residential care, who may have experienced trauma and instability in the past, should give particular attention to this.

Secure attachment can also serve as a protective factor against the transmission of anxiety and depression from parents to children. (West et al., 2020). Building secure attachments can be essential to preventing the development of PTSS in residential care settings, where children may be exposed to a variety of caregivers and unstable environment. Research by Shmueli-Goetz and Radobuljac shows that attachment security affects physiological stress responses, which can affect mental health in the long run (Rodriguez, 2024).

According to Radobuljac and Shmueli-Goetz (2015), people who are insecurely attached frequently display dysregulated stress responses, which results in prolonged exposure to stress hormones and may be a contributing factor in the development of PTSS. This highlights the significance of fostering stable and supportive caregiver relationships in residential care settings, as secure attachments can help mitigate the long-term psychological effects of stress and trauma.

2.1.8 Acute Stress and PTSS

The connection between acute stress and PTSS is widely recognized in trauma research. When exposed to acute stress, the hypothalamic-pituitary-adrenal (HPA) axis is activated, leading to an increased release of cortisol and other stress hormones. If this system remains dysregulated over time, it can contribute to the persistence of trauma-related symptoms (Rodriguez, 2024). Children who fail to resolve acute stress reactions are more likely to develop hallmark PTSS symptoms, including intrusive memories, hypervigilance, emotional numbness, and avoidance behaviors (Schauss et al., 2022).

Children in residential care are particularly susceptible to PTSS due to repeated exposure to stressors and a lack of stable, supportive relationships that could help mitigate the impact of trauma. Research suggests that those with a history of early adversity and chronic stress exhibit heightened fear responses and struggle with emotional regulation, making them more prone to developing PTSS

(Sheidow et al., 2013). Additionally, institutional care settings often lack adequate therapeutic interventions, further increasing the risk of PTSS (Quiroga and Hamilton-Giachritsis, 2015).

Prolonged exposure to stress in childhood has been linked to cognitive impairments, emotional dysregulation, and a higher risk of mental health conditions such as anxiety and depression (Charuvastra and Cloitre, 2007). Studies also indicate that persistent PTSS can result in social withdrawal, difficulties in forming healthy relationships, and maladaptive behavioral patterns in adulthood (Peterson, 2018). Furthermore, children who do not receive timely intervention for acute stress and PTSS may face long-term challenges, including poor educational attainment and difficulties in securing stable employment due to ongoing emotional and cognitive struggles (Bowlby, 1988). These findings highlight the urgent need for residential care facilities to adopt trauma-informed care practices, ensuring that children receive the emotional support necessary to reduce the harmful effects of acute stress and prevent the development of chronic PTSS (Nelson et al., 2020).

2.1.9 PTSS in Children Living in Residential Care

Children in residential care frequently experience symptoms of post-traumatic stress disorder (PTSD) due to the challenges of institutional life and past trauma. Research indicates that these children are more likely to develop post-traumatic stress symptoms (PTSS) because they are exposed to negative experiences both prior to and during their time in care (Graham and Johnson, 2019). The stressors associated with residential living, combined with the traumatic histories of these children, often contribute to their emotional and behavioral issues (Thakur et al., 2016).

Further complicating their psychological adjustment is the criminalization of behaviors exhibited by children in residential care. According to (McLaughlin and Lambert, 2016b), children in these environments are often punished for behaviors that are expressions of their stress and trauma, rather than being recognized as signs of underlying problems. This criminalization can create a cycle of stress and trauma, exacerbating PTSS and hindering recovery efforts.

In Pakistan, children in residential care frequently exhibit symptoms of PTSD, which can be attributed to both pre-placement trauma and the challenges of institutional living (Chaudhry et al., 2022). Studies have shown that children raised in these environments are more likely to encounter negative events, such as violence and instability, which increases their risk of developing PTSS. The cultural context may further exacerbate these children's symptoms, as it often does not adequately address their mental health needs. Additionally, PTSS can impact family dynamics and relationships. Research indicates that parents of children with PTSS often face their own stress and emotional difficulties, which can hinder their ability to support their children effectively (Christie et al., 2019).

2.1.10 Children in Residential Care in Pakistan

Consistent with the findings of Darkwah et al. (2017), caregivers commonly relied on their faith and intrinsic motivation as coping mechanisms for work-related stress. Gender differences were observed in terms of caregivers' reported well-being, which may reflect Pakistani cultural norms that often portray women as fragile and emotionally vulnerable when dealing with stress (Chaudhry et al., 2022). Interestingly, male caregivers only identified financial stressors. While it is possible that they did not experience physical or personal effects from their caregiving role, it may also be attributed to discomfort in reporting such issues, as Pakistani culture expects men to be strong, and any sign of weakness is often met with humiliation and ridicule (Thakur et al., 2016). When discussing caregivers' confidence levels, it was clear that male caregivers appeared more confident and assertive in their caregiving abilities. This aligns with the Pakistani context, where men are often viewed as authority figures, and children tend to fear their authority (Alvi et al., 2017; Aqeel et al., 2019). Despite the variation in experiences, none of the caregivers had received relevant professional training. This is consistent with prior research, which has highlighted the lack of specialized training and professional knowledge among orphanage caregivers (Alvi et al., 2017; Bromfield et al., 2010; Deb, 2015).

The socio-cultural context of Pakistan, where family structure and social support systems play a vital role in child development. In Pakistan, children who have been split off from their biological parents or whose parents are incapable or unwilling to care for them are considered to be without parental care. Poverty, parental death, abandonment, abuse, and neglect are some of the causes of this. Since they are frequently at risk of exploitation, human trafficking, and other types of abuse, children in Pakistan who do not have parental care face a difficult situation overall. (Murtaza, 2023).

Pakistan is home to about 4 million orphans, many of whom live in institutions, on the streets, or with family members who might not be able to give them the proper care, according to UNICEF.

For children in need of protection and care, alternative care is essential. Foster care, kinship care, and adoption are examples of this, as they offer children a secure and caring setting that supports their social, emotional, and physical development. Nevertheless, there aren't many options for alternative care, and the country doesn't have a strong legislative or policy foundation to support it. Many people would rather care for children in their extended family or community than through formal adoption because adoption is stigmatized in society. Providing appropriate non-residential care for children may become difficult as a result. In general, a thorough and child-centered approach to alternative care that puts the child's best interests first must be developed immediately.

With an estimated population of 233,022,409 as of right now, Pakistan is the fifth most populous country in the world (Nazeer, 2018). 21.14 of the population is between the ages of 15 and 24, while 31.36 percent of the population is between the ages of 0 and 14. Indeed, Pakistan's progress on children's rights since gaining independence in 1947 can be gauged by a number of social indicators. As the infant mortality rate and illiteracy have decreased, so too has life expectancy, access to health care, and education. The full realization of children's rights will still require a significant amount of time and work, though (NCCWD, 2023).

Furthermore, due to economic hardships, loss of parents, or family breakdowns, many children end up in institutional care where they may experience inconsistent

caregiving and a lack of emotional warmth (Khalid et al., 2022). The absence of stable parental figures in these settings often leads to insecure attachment, making children more susceptible to acute stress and trauma-related symptoms. In contrast, secure attachment, even in institutional settings, can serve as a protective factor against stress and mental health challenges.

Studies conducted in Pakistan have also highlighted the lack of structured psychological interventions in residential care settings, further exacerbating the effects of insecure attachment (Khalil et al., 2019). Given these socio-cultural dynamics, there is a critical need for attachment-based interventions tailored to the Pakistani context. Training caregivers in attachment-focused caregiving strategies and providing children with consistent emotional support can help mitigate the negative effects of insecure attachment and enhance their psychological resilience.

2.1.11 Demographic Variables

Children aged 9 to 12 years in residential care face significant challenges related to PTSS (Post-Traumatic Stress Symptoms), attachment, and acute stress, with both age and gender playing critical roles. At this stage, children are developing more complex emotional awareness, making disruptions such as separation from family especially impactful, leading to feelings of confusion, shame, and isolation. PTSS symptoms may manifest as intrusive memories, hyper arousal, avoidance, and emotional numbness (Shonkoff et al., 2011).

Few longitudinal studies have investigated the effects of attachment styles and orientations, assessed prior to traumatic events, on PTSD symptoms, using specific and relatively small samples (Ayers et al., 2014; MacDonald et al., 2008; Shallcross et al., 2014). MacDonald et al. (2008) assessed attachment style at 12 months and found that a disorganized attachment style at that age was associated with higher symptoms of re-experiencing (rate ratio = 2.1) and avoidance (rate ratio = 2.4) at 8.5 years old, but not hyper arousal (n = 78). Ayers et al. (2014) explored the effect of avoidant attachment orientation during late pregnancy on PTSD symptoms three months postpartum. Avoidant attachment orientation explained 12.3 percent of the variance in postpartum PTSD symptoms, with 21.3 percent of

the variance explained among women (n = 21) who had operative births. However, this effect was not significant among women (n = 36) who had vaginal births, and it is unclear whether this is due to a reduced range of PTSD scores in the latter group. Shallcross et al. (2014) examined attachment orientations (anxiety and avoidance) in undergraduate students at the beginning of a two-month study period (n = 174). They found that both orientations together predicted 11 percent of the variance in PTSD symptoms two months later, with social resources acting as a mediator.

Being female is a significant predictor of PTSD. Studies have consistently shown higher PTSD rates in women across various populations, including adults exposed to traumatic events in Gaza (Aa, 2013), refugees from Congo (Ainamani et al., 2020), Rwanda, and Somalia living in Uganda (Onyut et al., 2009), Iranian Yazidis displaced to Turkey (Tekin et al., 2016), and military personnel returning from operations in Iraq, Afghanistan, or Kuwait in 2008 and 2009 (Macera et al., 2014). Civilian studies have also found that women, compared to men, tend to report higher levels of depression, anxiety, and PTSD (Tolin and Foa, 2006). For instance, a 2016 study on internally displaced persons (IDPs) in Ukraine found that women were more likely to experience PTSD, depression, and anxiety. However, not all findings align, as some research suggests differences based on the intensity of combat experience. For example, Haskell et al. (2014) found that military service in Iraq was linked to a lower risk of PTSD in women than in men, with the intensity and frequency of combat playing a more significant role than gender itself. Additionally, the National Vietnam Veterans Readjustment Study indicated a higher prevalence of PTSD among male veterans (Schlenger et al., 1992). Another study showed that PTSD symptoms were a predictor of future drug use problems in male veterans, while drug use was associated with increased PTSD symptoms in female veterans (Livingston et al., 2021). In another study found that higher levels of PTSD were associated with being female (Fel et al., 2022).

Chapter 3

Research Methodology

3.1 Research Design

A cross-sectional study design was used to explore the relationship between attachment style, acute stress, and PTSS using a quantitative research approach.

3.1.1 Sample Size

The sample consisted of 202 children (Parveen, Iqbal and Nadeem, 2022). Children within the age range of 9–12 years from orphanages in Islamabad and Rawalpindi participated in the study.

3.1.2 Sampling Technique

Purposive sampling technique is used

3.1.3 Exclusion Criteria

Children with severe psychiatric or physical illness impairing their speaking and communication capacity are excluded from the study. Children whose spoken language is Pashtun, Sindhi, and Saraiki are also excluded from the study.

3.1.4 Inclusion Criteria

Children aged between 9 and 12 years old who have signed the assent and consent were signed by the orphanages in the study. Children who speak Urdu language are included in the study.

3.1.5 Instruments

Standardized psychological measures are used in this study to measure the variables.

3.1.6 Demographic Information

A demographic form was provided to the children, which included open-ended questions regarding school identity, name, age, gender, religion, grade, number of siblings, guardian, occupation of guardian, visit of guardians, duration in orphanage, and parents alive.

3.1.7 Urdu Version of the UCLA PTSD Reaction Index for DSM-V Scale

The UCLA PTSD Reaction Index for DSM-V Scale, developed by Pynoos and Steinberg (2013), was employed in this study to assess the presence of PTSD symptoms among the participants. The DSM-5 version is a semi-structured interview that evaluates a child's traumatic experiences and includes a comprehensive assessment of all DSM-5 PTSD diagnostic criteria for children and adolescents. This scale is a revision of the UCLA Child/Adolescent PTSD Reaction Index for DSM-IV and consists of 31 items, 27 of which assess PTSD symptoms, and 4 items that address the Dissociative Subtype. The scale is available in multiple languages, including Urdu, Spanish, and German (Pynoos, 2015). The psychometric properties of the scale include a high internal consistency, with an alpha coefficient of .89 for Post-Traumatic Stress Symptoms (Steinberg et al., 2013).

3.1.8 Attachment Style Classification Questionnaire

The attachment style questionnaire is an adaptation of the Hebrew version (Mikulincer et al., 1990) of Hazan and Shaver's (1987) attachment classification tool for children. This instrument measures three attachment patterns as defined by Ainsworth: secure, anxious/ambivalent, and avoidant. It consists of 15 items, with examples such as: "I usually believe that others who are close to me will not leave me" for secure attachment, "I'm sometimes afraid that no one really loves me" for anxious/ambivalent attachment, and "I find it uncomfortable and get annoyed when someone tries to get too close to me" for avoidant attachment. Children are asked to read each item and rate how accurately it describes them on a 5-point scale, ranging from 1 (not at all) to 5 (very much). The psychometric properties of the scale are supported by alpha coefficients of .70 (Finzi et al., 1996; Finzi et al., 2000). The questionnaire has also been translated into Urdu by Naz and Dawood (2010).

3.1.9 Acute Stress Checklist (ASQ- Kids)

The Acute Stress Checklist (ASC-Kids) (Kassam-Adams, 2006) was developed by the Center for Pediatric Traumatic Stress (CPTS), practical self-report measure of acute stress disorder (ASD) reactions in children and adolescents between the ages of 8 and 17. The measure was developed and validated in English (ASC-Kids) and Spanish (Cuestionario de Estrés Agudo - Niños [CEA-N]) as a 29-item measure and two short forms (3 - and 6-items). The children were asked to read each item and to rate the extent to which the item described themselves on a 3-point scale where 0 = never / not true, 1 = somewhat / sometimes, and 2 = often / very true. The alpha coefficients for .83 (Kassam-Adams et al., 2019).

3.1.10 Translation phase of Scale Acute Stress Checklist

The selected instrument for the current study was in English. Urdu is a Wide spoken and English is not understandable for children in orphanages. Scale was therefore converted to Urdu. Brislin's translation guidelines (Chavez and Canino,

2005; Ozoline, 2009) were applied in order to translate the standardized scale. The following procedures were used to translate.

3.1.11 Procedure

The translation of the scales was completed in Step-I, which involved five stages: 1. Forward translation 2. Committee evaluation 3. Back translation 4. Committee evaluation 5. Final translation

3.1.12 Forward Translation

Six professionals with fluency in Urdu and English were contacted to translate the scales. An overview of the research's variables and rationale was provided to the experts. For this translation phase, four psychology instructors and one English instructor were asked to participate from the capital university of science and technology in Islamabad and the PAF Academy Risalpur. They were instructed to concentrate on conceptual meaning rather than literal meaning. There were two versions of forward translation.

3.1.13 Committee Evaluation

Following the completion of the translation phase, a committee was formed with the following six members: the researcher herself, the supervisor, MS scholars, an assistant clinical psychologist, and a lecturer from Capital University of Science and Technology, Islamabad. They were asked to carefully examine every item in the translated measures in terms of language and relevance to the content of the original scales.

3.1.14 Back Translation

The instrument's forward translated version (from English to Urdu) was then sent for back translation (from Urdu to English). Back translation was requested from two people. Both were bilingual (in Urdu and English) and had earned graduate

degrees. These people lacked access to the original tools in order to preserve the translation's objectivity. The students were told to use no additional equipment and to translate the instrument back into English as they understood it.

3.1.15 Committee Evaluation

Six bilingual experts (n=6) formed a committee to critically evaluate the back-translated items and select the final items. The current research supervisor served as the head of this committee, which also included the researcher, assistant professors of psychology, and lecturers from the Capital University of Science and Technology Islamabad's psychology department. Every committee member acknowledged to the translated items' conveying of meaning that was either similar to or closest to the original. Therefore, no item needed to be modified. The expert panel committee discussed the two back-translated versions. This panel of experts comprised the researcher, the supervisor, research associates, and psychologists. Similarities between the back-translated and original English versions were examined. A couple of discrepancies were noted. These errors were fixed, and the corrected text was sent to someone else to translate. The panel determined that, following another round of revisions, the original and back-translated versions were comparable.

3.1.16 Final version

All the changes of the back and forward translation are revised for the final version for the main study.

3.1.17 Data Collection Procedure

The data collection process involved selecting participants, obtaining informed consent, and administering screening questionnires. A total of 202 participants, aged 9-12 years, were selected from different orphanages in Islamabad and Rawalpindi. The study was conducted following ethical guidelines, ensuring confidentiality and voluntary participation.

Official permission was obtained from orphanage administrators to access the children. A briefing session was conducted with caregivers and children to explain the study's objectives and procedures in an age-appropriate manner. Informed consent was obtained from orphanage authorities, and verbal assent was sought from the children before participation.

Data collection took place in a quiet and comfortable setting within the orphanage premises. The researchers administered the following standardized psychological measures: UCLA PTSD Reaction Index for DSM-V to assess post-traumatic stress symptoms (PTSS). Acute Stress Checklist for Children to measure acute stress responses. Attachment Style Classification Questionnaire to evaluate secure and insecure attachment styles.

The researcher assisted children in understanding and completing the questionnaires to ensure accurate responses. The assessment took approximately 20-25 minutes per participant. The collected data was securely stored and later analyzed using SPSS (Version 21) and Mplus (Version 7) for statistical analysis.

3.1.18 Ethical Considerations

This study was conducted following ethical guidelines and was approved by the Ethics Review Committee of the Department of Psychology, Capital University of Science and Technology, Islamabad. Informed consent was obtained from the orphanage administration, and verbal assent was secured from the children to ensure voluntary participation. Confidentiality and anonymity were maintained by assigning unique identification codes instead of names, and data was securely stored for research purposes only. Participants were informed of their right to withdraw at any stage without consequences. To minimize harm, non-invasive psychological assessments were used, and any participant showing distress was provided with immediate psychological support and referred to caregivers if needed.

Chapter 4

Results

4.1 Data Analysis

Data analysis was conducted in Statistical Package of Social Sciences (SPSS-21) and Mplus 7 version. All of the data cleaning, descriptives, correlations and missing values analyses were done on SPSS. For mediation analysis Mplus 7 was used. The first response was deemed correct, despite 37 missing values. This was completed following the instructions for double-marked responses given by Haffer (2003).

4.1.1 Descriptive statistics

Descriptive statistics were used to determine the data's variance and distribution. Mean, median, mode, standard deviation, skewness, and kurtosis were computed for categorical variables, and frequency and percentages were computed for continuous variables. The Kolmogorov-Smirnov (K-S) normality test was used to evaluate the data's normal distribution.

Inferential statistics were computed to test the reliabilities of scales by calculating Cronbach's alpha

To examine the hypothesized relationships between the variables, bivariate analyses were conducted. The Spearman correlation coefficient was utilized to determine associations between two continuous variables.

To further examine the hypothesized relationships between the variables for mediation analyses path analysis was performed.

The current study was conducted to explore the relationship of attachment in acute stress and post-traumatic stress symptoms among children living in residential care. The findings of the study are presented in this chapter.

4.1.2 Sample Characteristics

For the present study data was collected from 202 participants. Among them 177 were male and 25 were female. The following table present summaries of the demographic characteristics of sample.

In this sample most of the children (N = 132, 65 percent) are 12 years old. The mean age is 11.54 and 12 is the median. While .72 is the standard deviation with -1.55 skewness and 1.93 kurtosis. A histogram showing the distribution of age is presented in figure 1.

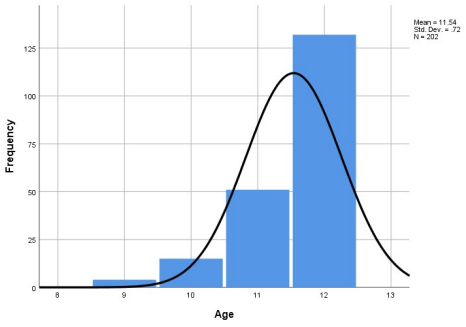

FIGURE 4.1: Distribution of Age

The Kolmogorov-Smirnov (K-S) value is 0.000 ($p < 0.001$), indicating a non-normal distribution of age.

Out of the 202 participants, 25 were female and 177 were male. 132 participants were of 12 years old, 51 participants were of 11 years old, 15 participants were of 10 years old and 4 participants were of 9 years old. Overall, 10 (5 percent) of the participants were in the first grade, 4 (2percent) were in the second grade, 25 (12 percent) were in the third grade, and 25 (12 percent) were in the fourth grade. A

TABLE 4.1: *Frequencies and percentages for demographic characteristics (N = 202).*

Demographics	**N**	**%**
Age		
9 years	4	2
10 years	15	7
11 years	51	25
12 years	132	65
Gender		
Male	177	87
Female	25	12
Grade		
Prep	1	0.5
1st grade	10	5
2nd grade	4	2
3rd grade	25	12
4th grade	25	12
5th grade	30	15
6th grade	31	15
7th grade	32	16
8th grade	20	10
9th grade	16	8
10th grade	6	3
Duration in Orphanage		
Less than 6 months	24	11
1 year	32	15
2 years	21	10
3 years	38	18
4 years	21	10
5 years	26	12
6 years	12	5
7 years	9	4
8 years	11	5
9 years	2	1
10 years	4	2
11 years	1	0.5
12 years	1	0.5
Visit of Guardians		
Yes	182	90
No	19	9
Only once	1	0.5
Parents Alive		
Both alive	91	45
Mother alive	97	48
Father alive	6	3
Both deceased	8	4

total of thirty (14 percent) participants were in grade 5, thirty-one (15 percent) were in grade 6, thirty-two (16 percent) were in grade 7, twenty (10 percent) were in grade 8, sixteen (8 percent) were in grade 9, and six (3 percent) were in grade 10. Among the 202 participants, 91 children (45 percent) have living parents. Six children (3 percent) have only their father alive, while 97 children (48 percent) have only their mother alive. Additionally, eight children (4 percent) do not have any living parents.

TABLE 4.2: Descriptive Statistics for Study Variables

Scales	**Mean**	**Median**	**Mode**	**SD**	**Skewness (S)**	**Kurtosis (K)**
Insecure	15.94	17	17	4.44	-0.307	-0.341
Secure	19.21	20	21	4.05	-0.918	1.81
Avoidant	16.21	16	13	4.09	-0.051	-0.065
Acute Stress	28.07	29	27	10.10	-0.635	0.472
PTSD	45.22	47	47	21.79	-0.074	0.322

The mean value of insecure attachment 15.94, median is 17, mode is 17, standard deviation 4.44, skewness is -.307 and kurtosis is -.341. Mean value of secure attachment is 19.21, median is 20, mode is 21, standard deviation is 4.05, skewness is -.918 and kurtosis 1.81. Respectively mean value of 16.21, median 16, mode 13, standard deviation is 4.09, skewness is -.051 and kurtosis is -.065. The mean value of acute stress is 28.07, median is 29.00, and mode is 27. The obtained value of standard deviation is 10.10, skewness is -0.635, and kurtosis is 0.472, respectively. The Kolmogorov-Smirnov (K-S) test value is 0.000 ($p > 0.05$).

The mean value of PTSS is 45.22, median is 47, and mode is 47. The obtained value of standard deviation is 21.79, skewness is -0.074, and kurtosis is 0.322, respectively. The Kolmogorov-Smirnov (K-S) test value is 0.000 ($p > 0.05$).

4.1.3 Attachment Style Classification Questionnaire

The classification of attachment style and the distribution of total scores are present in figure 2.

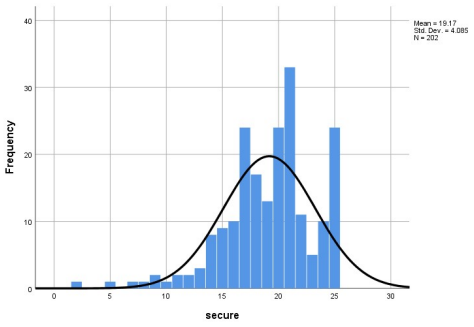

FIGURE 4.2: Distribution of secure attachment, insecure attachment, avoidant attachment as measured by Attachment Style Classification Questionnaire (ASCQ) (N = 202)

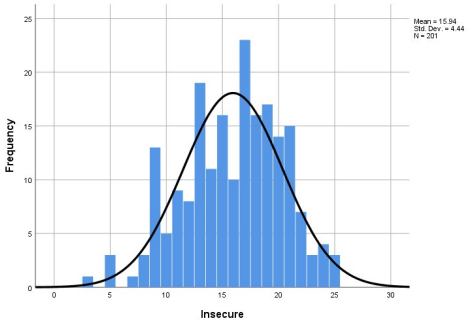

FIGURE 4.3: Distribution of insecure attachment,as measured by Attachment Style Classification Questionnaire (ASCQ) (N = 202)

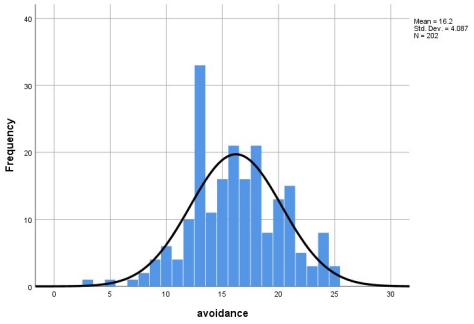

FIGURE 4.4: Distribution of avoidant attachment as measured by Attachment Style Classification Questionnaire (ASCQ) (N = 202)

4.1.4 UCLA PTSD Reaction Index for children/adolescents DSM-5

The classification of post-traumatic stress symptoms are high, medium, and low as presented in the Figure3.

The mean value of post-traumatic stress symptoms is 45.22. While the obtained value of standard deviation is 21.79, .322 is the value of kurtosis and -.074 is the value of skewness. The distribution of post-traumatic stress symptoms is not

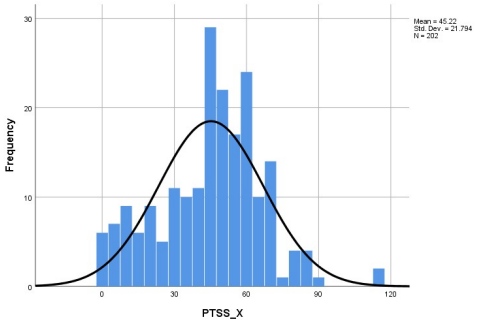

FIGURE 4.5: Distribution of post-traumatic stress symptoms as measured by UCLA PTSD RI for DSM-5 (PTSD RI DSM-5) (N=202).)

normally distributed and highly negatively skewed indicating children who lives in residential care reports high post-traumatic stress symptoms.

4.1.5 Acute Stress Checklist (ASC-Kid)

The classification of acute stress symptoms into high, medium, and low is presents and the distribution of total scores is present in figure 4. The mean value of

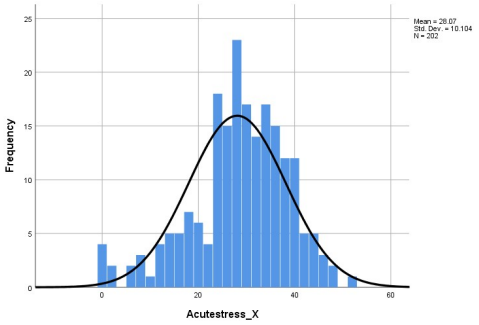

FIGURE 4.6: Distribution of acute stress as measured by Acute Stress Checklist (ASC – Kids) (N=202).

acute stress is 20.07. While the obtained value of standard deviation is 10.104 respectively. The distribution of acute stress is not normally distributed and highly negatively skewed indicating children who lives in residential care reports high acute stress symptoms.

4.1.6 Psychometric Properties of Scales

The following table presents the reliability of the Urdu version of the scales used in this study.

Table 4.3: Reliability of Urdu Version of the Scales Used in the Study

Scales	**N**	**M**	**SD**	$\boldsymbol{\alpha}$
Attachment Style Classification Questionnaire	15	3.31	4.08	.583
Acute Stress Checklist	29	9.66	10.10	.835
UCLA PTSD RI (DSM-5)	31	1.09	21.7	.895

Current research examines the reliability of the UCLA PTSD Reaction Index for Children/Adolescents DSM-5 (UCLA PTSD RI DSM-V), the Acute Stress Checklist (ASC-Kids), and the Attachment Style Classification Questionnaire (ASCQ) in Urdu version. According to the study's findings, the UCLA PTSD RI for Children/Adolescents-DSM-V has a high reliability.

4.1.7 Association of Insecure Attachment with Secure Attachment, Avoidant Attachment, Acute Stress, and UCLA PTSD

Table 4.4: Correlation Table for Attachment, Acute Stress, and PTSD

Scales	**Insecure**	**Secure**	**Avoidant**	**Acute Stress**	**UCLA PTSD**
Insecure attachment				.383**	.343**
Secure attachment				0.098	-0.076
Avoidant attachment					
Acute stress					.427**
UCLA PTSD RI DSM–V					

To study the insecure attachment patterns with Secure Attachment, Avoidant Attachment, Acute Stress, and UCLA PTSD measured by scales of Attachment Style Classification Questionnaire (ASCQ), UCLA PTSD RI DSM-V and Acute Stress Checklist (ASC-KIDS) Spearman Rank correlation test was applied.

As table 4 shows that Spearman's rank-order correlation was conducted to assess the relationship between insecure attachment and acute stress (AcutestressX). Results indicated a statistically significant positive correlation between insecure

attachment and acute stress, r = .383, p = .000 (one tailed). These finding shows that higher levels of insecure attachment are associated with higher levels of acute stress.

As table 4 shows that Spearman's rank-order correlation was conducted to evaluate the relationship between insecure attachment and PTSD symptoms (PTSSX). Results indicated a statistically significant positive correlation between insecure attachment and PTSS, r = .343, p = .000 (one tailed). These finding shows that higher levels of insecure attachment are associated to report higher level of PTSD symptoms.

On the other hand, secure attachment did not show a significant correlation with acute stress (r = .098, p = .083, p >.05) or PTSS (r = -.076, p = .143, p >.05), implying that secure attachment does not have a meaningful direct association with these variables.

A significant positive correlation was observed between acute stress and PTSS (r = .427, p = .000, p <.01), indicating that individuals who experience higher levels of acute stress are more likely to report increased PTSS symptoms.

The findings indicate that insecure attachment is significantly associated with both acute stress and PTSS, suggesting that individuals with higher levels of insecure attachment experience greater psychological distress. In contrast, secure attachment does not show a significant relationship with either acute stress or PTSS, implying that it may not directly influence these outcomes. Additionally, a strong positive correlation between acute stress and PTSS highlights the impact of stress on trauma-related symptoms. Overall, the results emphasize the role of insecure attachment in stress responses and PTSS development, while secure attachment appears to have no significant effect.

4.1.8 Testing Hypothesized Model

In the model, independent variables are secure, inseinsecure, avoidant attachment, the outcome variable is post-traumatic stress symptoms., and mediator is acute stress. Fit indices and the percentage of variance accounted for in the model were used to evaluate the hypothesized model's fit.

4.1.9 Fit Indices

Fit indices, such as chi-square , the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA) index, will be used to determine the hypothesized model's fit.

4.1.10 Model Estimation

The analysis is conducted using data from a single group with 197 observations. Three independent variables, secure, insecure, and avoidance, were examined for their impact on two dependent variables, acute stress and post-traumatic stress symptoms (PTSS). No continuous latent variables were involved. Maximum likelihood estimation (MLM) is applied.

4.1.11 Model Fit Information

The model had 10 free parameters. The log likelihood values were -1590.491 for the null hypothesis (H_0) and -1589.661 for the alternative hypothesis (H_1). The χ^2 is 2.112 with $df = 1$ ($p = .1462$), indicating an acceptable fit. The RMSEA is 0.075 (90% CI = 0.000–0.221), with a probability of RMSEA $\leq .05$ of 0.242. The CFI is 0.988.

4.1.12 Model Results

For acute stress, insecure significantly predicted the dependent variable ($SE = 0.183, p < .001$), while secure ($SE = 0.189, p = .324$) and avoidance ($SE = 0.193, p = .369$) did not.

For PTSS, acute stress ($SE = 0.183, p < .001$), secure ($SE = 0.311, p = .005$), and insecure ($SE = 0.348, p = .005$) were significant predictors.

The standardized coefficient for acute stress on insecure was 0.409 ($SE = 0.063, p < .001$).

For PTSS, the standardized coefficients were 0.322 ($SE = 0.083, p < .001$) for acute stress, -0.155 ($SE = 0.055, p = .005$) for secure, and 0.195 ($SE = 0.070, p = .005$) for insecure.

The R^2 for acute stress was 0.210 ($SE = 0.054, p < .001$), and for PTSS, it was 0.190 ($SE = 0.059, p = .001$), indicating moderate model fit for both variables.

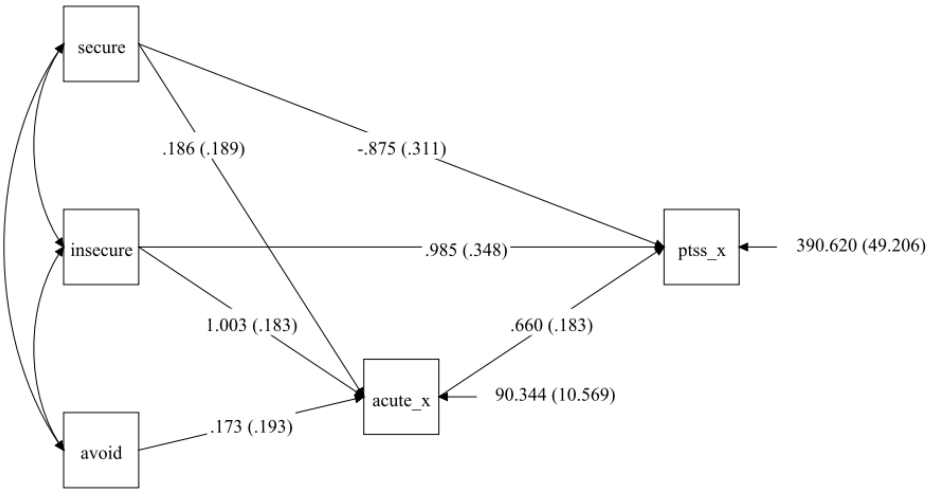

FIGURE 4.7: Diagrammatic presentation of initial model.

4.1.13 Model 2 Estimation and Fit

Analysis involved two dependent variables (acute stress and PTSS), two independent variables (secure and insecure), and 197 observations. The maximum likelihood estimation method (MLM) was used. The number of free parameters was 9. The $\chi^2 = 0.000$ with 0 degrees of freedom ($p < .0001$). The RMSEA was 0.000 with a 90 percent confidence interval of [0.000, 0.000], indicating excellent model fit. The CFI 1.000, indicating a perfect model fit. The effect of secure was non-significant ($SE = 0.171, p = .169$), while the effect of insecure was significant ($SE = 0.170, p < .001$). For PTSS, the effect of acute stress was significant ($SE = 0.183, p < .001$). Both secure ($SE = 0.309, p = .005$) and insecure ($SE = 0.348, p = .005$) also had significant effects on PTSS. The standardized coefficients for acute stress on secure and insecure were 0.085 ($SE = 0.061, p = .160$) and 0.428 ($SE = 0.060, p < .001$), respectively. The standardized coefficients for

PTSS on acute stress, secure, and insecure were 0.322 ($SE = 0.084, p < .001$), -0.155 ($SE = 0.055, p = .005$), and 0.195 ($SE = 0.070, p = .005$), respectively. The R-squared value for acute stress was 0.207 ($SE = 0.054, p < .001$), and for PTSS, it was 0.190 ($SE = 0.060, p = .002$).

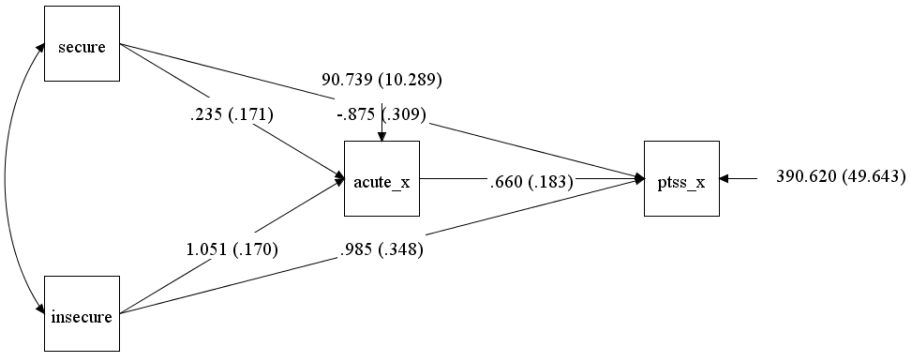

FIGURE 4.8: Diagrammatic presentation of model 2.

4.1.14 Model Estimation and Results

The analysis was conducted using data from a single group with 197 observations. Two dependent variables, acute stress and PTSS, and two independent variables, secure and insecure is examined. No continuous latent variables are involved. Maximum likelihood estimation (MLM) is applied. The model had 8 free parameters. The model had 8 free parameters. The $\chi^2 = 2.024$ with 1 degree of freedom ($p = .1548$), indicating an acceptable fit. The RMSEA was 0.072 (90% CI = 0.000–0.219), with a probability of $RMSEA \leq .05$ of 0.252. The CFI was 0.988, respectively.

For acute stress, the effect of insecure was significant ($SE = 0.173, p < .001$), while secure was not included as a predictor for acute stress. For PTSS, acute stress had a significant effect ($SE = 0.183, p < .001$), and both secure ($SE = 0.311, p = .005$) and insecure ($SE = 0.354, p = .005$) significantly predicted PTSS.

The standardized coefficient for acute stress on insecure was 0.447 ($SE = 0.059, p < .001$). For PTSS, the standardized coefficients were 0.320 ($SE = 0.083, p < .001$)

for acute stress, -0.154 ($SE = 0.055, p = .005$) for secure, and 0.195 ($SE = 0.071, p = .006$) for insecure.

The R^2 for acute stress was 0.200 ($SE = 0.053, p < .001$), and for PTSS, it was 0.197 ($SE = 0.059, p = .001$), indicating moderate model fit for both variables.

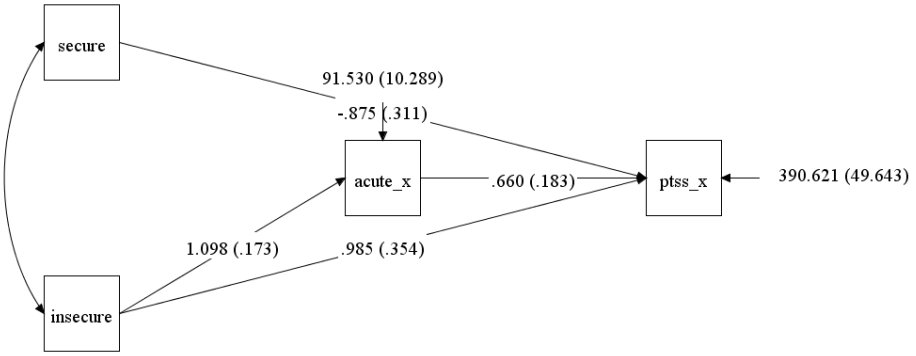

FIGURE 4.9: Diagrammatic presentation of final model .

Chapter 5

Discussion and Conclusion

The present study aimed to examine the role of attachment styles (secure, insecure, and avoidant) in acute stress and post-traumatic stress symptoms (PTSS) among children living in residential care, with acute stress serving as a mediator. The findings provide significant insights into the psychological well-being of children in institutional care, highlighting the importance of attachment security in mental health outcomes.

The findings of this study align with existing literature on attachment theory and stress responses in children residing in residential care. Consistent with Cassidy and Shaver (2016), the results highlight that secure attachment does not significantly predict acute stress or PTSS, reinforcing the notion that secure attachment fosters emotional resilience and adaptive coping mechanisms. Conversely, insecure attachment showed a significant positive correlation with both acute stress and PTSS, supporting the work of Ogle et al., (2014), who emphasized that insecurely attached children are more vulnerable to dysregulated stress responses and maladaptive coping.

The significant relationship between acute stress and PTSS further supports trauma models, such as the Stress-Diathesis Model, which suggests that exposure to acute stress exacerbates vulnerability to post-traumatic stress symptoms, particularly in children with insecure attachment. This finding is also consistent with Zeanah

et al. (2011), who reported that children in institutionalized care are at a heightened risk for insecure attachment due to inconsistent caregiving, leading to greater stress reactivity and increased susceptibility to trauma-related symptoms.

From a theoretical perspective, Bowlby's Attachment Theory (1969) provides a foundational explanation for these findings. According to this framework, children who develop insecure attachment due to inconsistent or absent caregivers struggle with emotional regulation, making them more prone to heightened stress responses and subsequent PTSS. This is particularly relevant in the study sample, where children in residential care often experience disrupted attachment relationships, placing them at greater risk for emotional and psychological distress.

Demographic data further contextualizes these findings. The majority of children were male (87 percent), which is notable since research suggests that boys in institutionalized settings may exhibit greater externalizing behaviors in response to stress (Zeanah et al., 2005). Additionally, while most children had guardian visits (90 percent), a notable proportion (9 percent) did not, which may contribute to attachment insecurity and increased stress vulnerability. The duration of stay in the orphanage also plays a crucial role, as prolonged institutionalization can further weaken attachment bonds, reinforcing the patterns observed in the study.

The findings of this study align with existing research on attachment theory and stress responses in children residing in institutionalized care. Bowlby's Attachment Theory (1969) serves as a fundamental framework for interpreting these results, emphasizing that early attachment experiences shape an individual's ability to regulate stress and cope with trauma. The significant relationship between insecure attachment and acute stress supports prior research indicating that children with insecure attachment styles exhibit heightened stress responses due to a lack of stable emotional support (Cassidy and Shaver, 2008). The absence of a significant relationship between secure attachment and acute stress suggests that while secure attachment is typically associated with better emotional regulation, it may not directly buffer against acute stress in children experiencing institutionalized care and early adversity.

Furthermore, the strong association between acute stress and PTSS, which posits that individuals exposed to high stress levels are at greater risk for developing PTSD symptoms. These results align with (Ogle et al., 2015), who highlight that children exposed to early-life stress, particularly in unstable caregiving environments, are more likely to exhibit dysregulated stress responses and long-term trauma-related symptoms.

The positive association between insecure attachment and PTSS further supports the notion that insecurely attached children lack effective coping mechanisms, making them more susceptible to post-traumatic stress symptoms (Zeanah et al., 2005). In contrast, the negative relationship between secure attachment and PTSS suggests that children with secure attachment styles may develop greater resilience against trauma-related symptoms, a finding consistent with Cassidy and Shaver's (2016) research on the protective effects of secure attachment.

The results highlight the critical role of attachment security in emotional regulation and trauma resilience, particularly for children in residential care. Institutionalized children often face inconsistent caregiving, which increases their likelihood of developing insecure attachment patterns, making them more vulnerable to acute stress and PTSS.

The findings support the mediating role of acute stress in the relationship between attachment and PTSS. Specifically, insecure attachment was associated with increased acute stress, which in turn contributed to higher PTSS levels. This tells that attachment insecurity increases children's vulnerability to acute stress, which subsequently elevates their risk of developing post-traumatic symptoms. The absence of a significant direct effect of avoidant attachment on acute stress and PTSS suggests that avoidance alone may not be a sufficient risk factor unless accompanied by additional stressors. The role of acute stress as a mediator in this study is also supported by previous findings. Studies by Lahousen et al., (2019) have suggested that acute stress acts as an intermediary pathway through which early attachment disruptions translate into PTSD symptoms. Furthermore, research Cushing et al., (2023) has indicated that children exposed to high levels of stress in insecure attachment relationships tend to develop heightened fear responses, which contribute to develop PTSD symptoms.

5.1 Conclusion

The findings of this study provide evidence that attachment style significantly influences acute stress and PTSS among children in residential care. Insecure attachment was strongly associated with heightened acute stress and PTSS, suggesting that attachment disruptions in early life may increase vulnerability to stress and trauma-related symptoms. The significant mediation effect of acute stress further underscores its role in linking attachment insecurity to PTSD symptoms.

From a practical perspective, these findings highlight the need for detail therapeutic interventions and attachment screening assessments aimed at strengthening secure attachment relationships among institutionalized children. Caregivers and mental health professionals working in residential settings should implement attachment-based therapeutic approaches to mitigate the negative impact of insecure attachment and promote resilience against stress and trauma.

Future research should explore the long-term psychological outcomes of attachment styles in residential care settings, incorporating longitudinal designs to assess the stability of these relationships over time. Additionally, investigating the role of protective factors, such as social support and coping strategies, could provide further insights into resilience-building mechanisms for at-risk children.

This study contributes to the understanding of how attachment styles influence acute stress and PTSS in children living in residential care. The findings highlight the detrimental effects of insecure attachment on both acute stress and PTSS, with acute stress acting as a crucial mediator. The demographic analysis further provides context for the experiences of children in institutional settings, emphasizing the need for targeted interventions.

5.2 Limitations

Following are the limitations of this study:

1. My findings are subject to memory biases due to the reliance on retrospective and self-report data. This may have influenced participants' recollection of

past traumatic events and attachment experiences, particularly in relation to PTSD symptoms, which could distort the accuracy of the reports.

2. Attachment was assessed at a single time point after the exposure to traumatic events, limiting our ability to examine potential longitudinal changes in attachment orientations. This also restricts the understanding of how trauma exposure may influence attachment dynamics and PTSD symptoms over time.

3. Attachment was assessed through self-report measures, which, while commonly used in the field for their feasibility, may have limitations in terms of psychometric properties. These measures might not capture the full complexity of attachment patterns and may be influenced by the participants' experiences of severe interpersonal trauma.

4. The study may have a limited sample size, which can affect the generalizability of the findings to all children in residential care settings.

5. The findings may not be applicable across different cultural contexts, as attachment styles and trauma responses can vary significantly across cultures.

6. Ethical considerations in working with children, especially in vulnerable residential care settings, may limit the types of assessments that can be conducted during the study.

7. The results may not be applicable to children in other care settings, such as foster homes or hospitals, where attachment dynamics may differ.

8. Many residential care facilities face issues with overcrowding, leading to limited resources and attention for each child. This can result in children not receiving the individualized support they need.

9. The environment in residential care can sometimes exacerbate emotional and behavioral issues in children, especially those who have experienced trauma or neglect before entering care. The lack of personalized therapeutic interventions can hinder recovery.

10. Children in residential care may face stigma from their peers or society, leading to feelings of social isolation and low self-esteem. This can be particularly challenging for their social and emotional development.

11. Residential care may not always take into account the cultural and ethnic backgrounds of children, which can affect their sense of identity and belonging within the facility.

5.3 Recommendations

Following are the recommendations based on the study findings:

1. Implement attachment-focused therapeutic interventions aimed at fostering secure attachments. Programs should focus on helping children build trusting, stable relationships with caregivers and address emotional regulation and coping mechanisms to manage stress and trauma.

2. Provide trauma-informed care training for all staff and caregivers to enhance their understanding of the psychological impact of trauma and acute stress. This training can help caregivers respond more effectively to children's emotional and behavioral challenges and create a safe environment.

3. Regular screening and assessment of children for acute stress and PTSD symptoms should be conducted to ensure early identification. Early intervention can prevent the development of more severe psychological issues.

4. Create individualized care plans based on each child's attachment style, trauma history, and specific needs. Tailoring care to the child's unique circumstances will support better emotional and psychological outcomes.

5. Foster stable and consistent caregiving by minimizing staff turnover and ensuring continuity in caregiver-child relationships. Consistent caregivers help children feel secure and supported, which can reduce stress and the impact of trauma.

6. Encourage and facilitate the involvement of family members (when possible and appropriate) in therapeutic processes to strengthen attachments and support the child's emotional well-being. For children not able to live with their biological families, establishing connections with positive family figures can be beneficial.

7. Offer group therapy or peer support programs that allow children to share their experiences and develop a sense of community with others facing similar challenges. Peer relationships can help build emotional resilience and reduce feelings of isolation.

8. Provide children with emotional support programs that teach healthy coping strategies for managing stress and trauma. These programs should also focus on improving self-esteem, problem-solving, and resilience.

9. Conduct longitudinal studies to monitor attachment patterns and changes over time to better understand how attachment develops in response to trauma and how it affects post-traumatic symptoms. This will help in identifying at-risk children and providing timely interventions.

10. Work closely with mental health professionals to develop a multidisciplinary approach that integrates therapeutic interventions for both attachment and trauma symptoms. Professional guidance is crucial in ensuring the right treatment approach for each child.

11. Ensure that children who leave residential care have access to continued support, such as counseling, mentoring, or foster care services, to help them maintain the attachment bonds developed during their stay and manage any ongoing trauma symptoms.

12. Engage the community and foster awareness about the challenges faced by children in residential care. Promoting social acceptance and reducing stigma can provide additional support for these children's well-being.

13. This study will be an important step toward encouraging the government to establish systems for better care and support for children in residential

care, similar to those seen in developed countries. The goal is to provide the best possible care to trauma victims, ensuring timely relief from psychological distress, particularly for children. This will help in preventing mental health issues in adulthood and mitigating the negative psychological effects of traumatic events, ultimately fostering long-term well-being for children in residential care.

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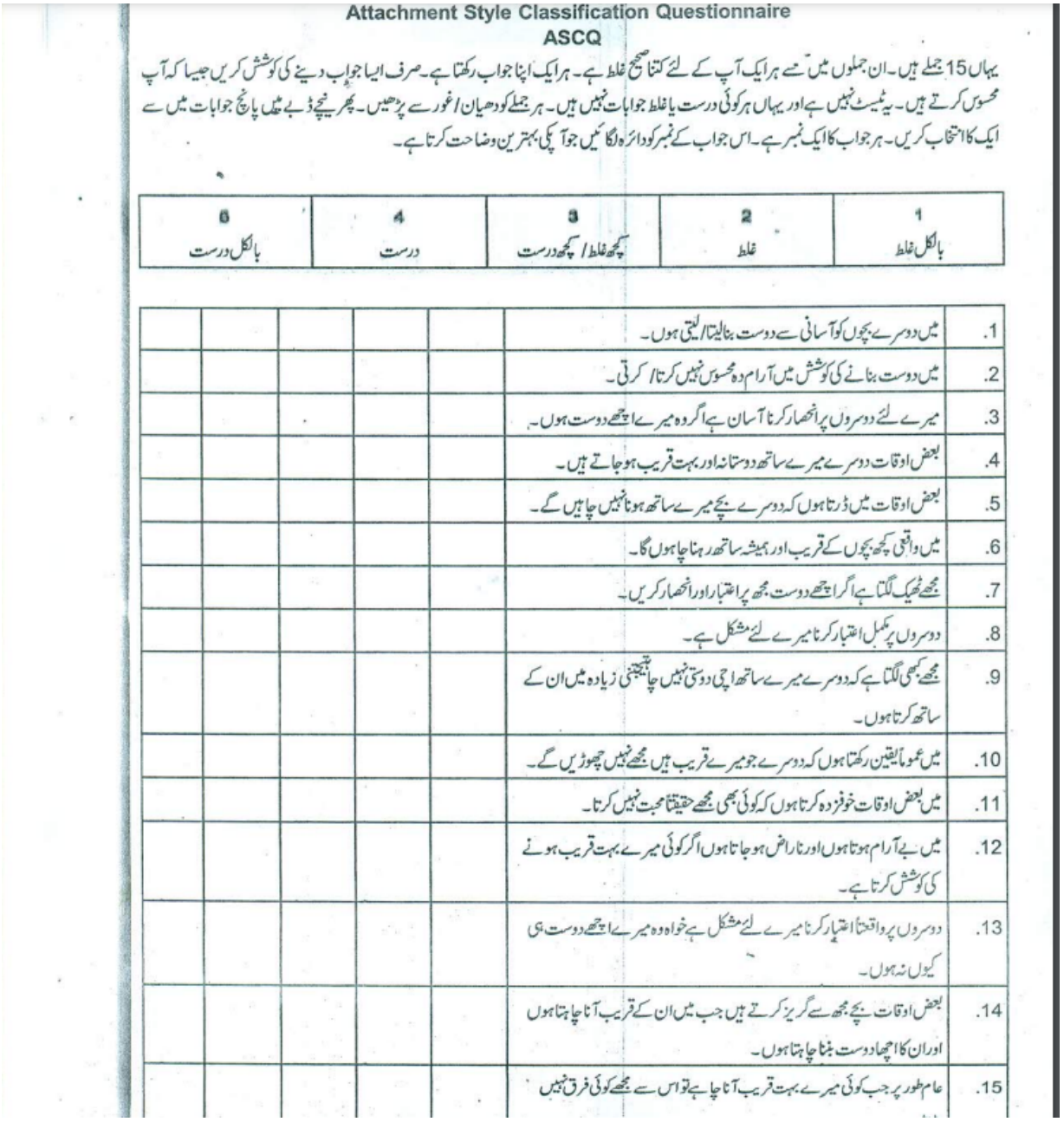
ڈیموگرافک شیٹ

1. نام:_____
2. تاریخ:_____
3. عمر:_____
4. جنس:_____
5. مذہب:_____
6. کیا اپ اسکول جاتے ہیں؟_____
7. اپ کس جماعت میں ہیں؟_____
8. اپ کے اسکول کا نام؟_____
9. اپ کے کتنے بھن بھائی ہیں؟_____
10. اپ کے سرپرست کون ہیں؟_____
11. سرپرست کا پیشہ؟_____
12. کیا آپکے سرپرست میں سے کبھی کوئی ملنے اتا ہے؟_____
13. اپ کب سے اس ادارے میں ہیں؟_____
14. کیا اپ کے والدین حیات ہیں؟_____

FIGURE 1: Demographic Information

Appendix B

Figure 2: Consent Form



Attachment Style Classification Questionnaire

ASCQ

یہاں 15 جملے ہیں۔ان جملوں میں سے ہر ایک آپ کے لئے کتنا صحیح غلط ہے۔ ہر ایک اپنا جواب رکھتا ہے۔صرف ایسا جواب دینے کی کوشش کریں جیسا کہ آپ محسوس کرتے ہیں۔ یہ ٹیسٹ نہیں ہے اور یہاں ہر کوئی درست یا غلط جوابات نہیں ہیں۔ ہر جملے کو دھیان / غور سے پڑھیں۔ پھر نیچے ڈبے میں پانچ جوابات میں سے ایک کا انتخاب کریں۔ ہر جواب کا ایک نمبر ہے۔اس جواب کے نمبر کو دائرہ لگائیں جو آپکی بہترین وضاحت کرتا ہے۔

1 بالکل غلط	2 غلط	3 کچھ غلط / کچھ درست	4 درست	5 بالکل درست

.1	میں دوسرے بچوں کو آسانی سے دوست بنالیتا/لیتی ہوں۔					
.2	میں دوست بنانے کی کوشش میں آرام دہ محسوس نہیں کرتا/ کرتی۔					
.3	میرے لئے دوسروں پر انحصار کرنا آسان ہے اگر وہ میرے اچھے دوست ہوں۔					
.4	بعض اوقات دوسرے میرے ساتھ دوستانہ اور بہت قریب ہو جاتے ہیں۔					
.5	بعض اوقات میں ڈرتا ہوں کہ دوسرے بچے میرے ساتھ ہونا نہیں چاہیں گے۔					
.6	میں واقعی کچھ بچوں کے قریب اور ہمیشہ ساتھ رہنا چاہوں گا۔					
.7	مجھے ٹھیک لگتا ہے اگر اچھے دوست مجھ پر اعتبار اور انحصار کریں۔					
.8	دوسروں پر مکمل اعتبار کرنا میرے لئے مشکل ہے۔					
.9	مجھے کبھی لگتا ہے کہ دوسرے میرے ساتھ اچھی دوستی نہیں چاہتے جتنی زیادہ میں ان کے ساتھ کرتا ہوں۔					
.10	میں عموماً یقین رکھتا ہوں کہ دوسرے جو میرے قریب ہیں مجھے نہیں چھوڑیں گے۔					
.11	میں بعض اوقات خوفزدہ کرتا ہوں کہ کوئی بھی مجھے حقیقتاً محبت نہیں کرتا۔					
.12	میں بے آرام ہوتا ہوں اور ناراض ہو جاتا ہوں اگر کوئی میرے بہت قریب ہونے کی کوشش کرتا ہے۔					
.13	دوسروں پر واقعتاً اعتبار کرنا میرے لئے مشکل ہے خواہ وہ میرے اچھے دوست ہی کیوں نہ ہوں۔					
.14	بعض اوقات بچے مجھ سے گریز کرتے ہیں جب میں ان کے قریب آنا چاہتا ہوں اور ان کا اچھا دوست بننا چاہتا ہوں۔					
.15	عام طور پر جب کوئی میرے بہت قریب آنا چاہے تو اس سے مجھے کوئی فرق نہیں					

FIGURE 3: Attachment Style Classification Questionnaire

Acute Stress Checklist (ASC-Kids)

ہم اس وقت آپ کے خیالات، احساسات اور رد عمل کے بارے میں جاننا چاہتے ہیں۔

کوئی صحیح یا غلط جواب نہیں ہے، آپ کیسا سوچ رہے ہیں اور محسوس کر رہے ہیں۔(ہم صرف یہ جانا چاہتے ہیں)

براہ کرم باکس میں ایک X لگائیں جو ظاہر کرے کہ ان میں سے ہر ایک جملہ آپ کے لیے کتنا درست ہے۔

مثال کے طور پر، اگر صبح میں آپ محسوس کریں کچھ وقت کے لئے یا کسی حد تک اپنے اپ کو نیند میں تو خانے میں X کا نشان لگائیں۔

		بلکل نہیں / صحیح نہیں	کبھی کبار / کسی حد تک	اکثر / بلکل صحیح
مثال کے طور پر	اگر صبح میں آپ محسوس کریں کچھ وقت کے لئے یا کسی حد تک اپنے اپ کو نیند میں۔			

	جب یہ ہو رہا تھا:	بلکل نہیں / صحیح نہیں	کبھی کبار / کسی حد تک	اکثر / بلکل صحیح
.1	یہ بہت چونکا دینے والا، ناپسندیدہ اور کوفناک تھا۔			
.2	میں اُس کو روکنا چاہتا / چاہتی تھی لیکن روک نا سکا / سکی۔			
.3	مجھے واقعی بہت خوف محسوس ہوا۔			
.4	مجھے لگا میں مر جاؤں گا / گی۔			
	جب یہ ہو رہا تھا یا اُس کے بعد:			
.5	مجھے کچھ محسوس نہیں ہو رہا تھا۔ میں پریشانی، اُداسی، یا خوشی محسوس نہیں کر سکتا سکتی تھی۔			
.6	مجھے چیزیں غیر یقینی لگ رہی تھی جیسے میں کسی خواب میں تھا / تھی، یا کوئی فلم دیکھ رہا تھا / رہی تھی۔			
.7	میں گم سُم محسوس کر رہا تھا / رہی تھی جیسے مجھے نہیں پتہ کہ کیا ہو رہا ہے۔			

FIGURE 4: Acute Stress Checklist

.8	مجھے مختلف اور دوسرے لوگوں سے دُری محسوسہوئی جب کہ لوگ میرے ساتھ تھے۔			
	اب:			
.9	جو کچھ ہوا مجھے اُس کا کچھ اہم حصہ یاد نہیں۔			
.10	جو کچھ ہوا اُس کی تصویریں اور آوازیں میرے زیہن میں آتی رہتی ہیں۔			
.11	میں اُس کے بارے میں سوچنا رُکنہیں سکتا / سکتی۔			
.12	کبھی کبھار ایسا لگتا ہے، کہ وہ سب دوبارا ہو رہا ہے۔			
.13	جب کوئی چیز مجھے یاد دلاتی ہے کہ کیا ہوا تھا، تو میں بہت پریشان ہو جاتا ہوں / جاتی ہوں۔			
.14	جب سے یہ ہوا ہے۔ مجھے زیادا بُرے خواب آتے ہیں۔			
	اب:			
.15	میں کوشش کرتا / کرتی ہوں کہ میں اُس بارے میں نہ سوچوں۔			
.16	میں کوشش کرتا / کرتی ہوں کہ میں اُس بارے میں بات نہ کروں۔			
.17	میں اُن چیزوں سے دور رہنا چاہتا ہوں / چاہتی ہوں جو مجھے یاد دلاتی ہیں کہ کیا ہوا ہے۔			
.18	میں اِس بارے میں اپنے احساسات کو روکنے کی کوشش کرتا ہوں / کرتی ہوں۔			
.19	میرے لیے سونا یا سوتے رہنا مشکل ہوتا ہے۔			
.20	جب سے یہ ہوا ہے، میں بہت جلدی غصے یا تنگی میں آجاتا ہو / آجاتی ہوں۔			
.21	مجھے توجہ دینے یا توجہ قائم کرنے میں مشکل پیش آتی ہے۔			
.22	مجھے یہ خوف محسوس ہوتا ہے کہ کچھ بُرا ہو جائے گا۔			
.23	میں اچانک شور سے جھنجھلا جاتا ہوں / جاتی ہوں۔			

FIGURE 5: Acute Stress Checklist

	ہر جملے کو ختم کریں اور وہ الفاظ منتخب کریں جو آپ کے لیے درست ہوں اور X کا نیشان لگائیں:			
.24	جو کچھ ہوا اُس کے بارے میں خیالات اور احساسات ■ بلکل پریشان نہیں کرتا۔ ■ تھوڑا پریشان کرتا ہے۔ ■ بہت پریشان کرتا ہے۔			
.25	جب سے یہ ہوا، دوستوں اور خندان والوں سے ملنا۔۔۔۔۔ ■ آسان ہو گیا ہے ■ پہلے جیسا ہے ■ مشکل ہو گیا ہے			
	اب:			
.26	میرے لیے یہ مشکل ہو جیا ہے کہ میں واپس معمول کی روٹین میں آؤں (سرگرمیاں، سکول، کھیل)			
.27	جب سے یہ ہوا ہے میرے والدین یا خاندان کے دیگر افراد واقعی پریشان ہیں (اداس، خوفزدہ، یا ناراض)			
.28	میرے پاس لوگ ہیں (میرے والدین، فیملی، اور دوست سمجھتے ہیں کہ میں کیسا محسوس کرتا ہوں / کرتی ہوں۔			
.29	اگر میں پریشان یا اُداس ہوں، تو میرے پاس طریقہ ہے کہ میں بہتر محسوس کر سکوں۔			

FIGURE 6: Acute Stress Checklist

کسی بچے یا نوجوان سے انٹرویو کے دوران پوچھئے:۔ بعض اوقات لوگوں کے ساتھ ایسی تشدد آمیز یا خوف زدہ کرنے والی چیزیں پیش آجاتی ہیں جہاں کوئی بُری طرح زخمی یا ہلاک ہوسکتا ہے یا ہوگیا ہو۔ کیا اس طرح کا کوئی واقعہ کبھی آپ کے ساتھ پیش آیا ہے؟

1۔ جو بھی واقعہ پیش آیا اس کو مختصراً بیان کریں۔ _____

_____

_____

نیچے کچھ مزید خوفزدہ کرنے والی یا تشدد آمیز چیزوں کی لسٹ دی گئی ہے، جو کہ پیش آسکتی ہیں۔ ہر سوال کے لیے 'ہاں' منتخب کریں اگر وہ واقعہ آپکے ساتھ پیش آیا ہو اور 'نہیں' کا انتخاب کریں اگر وہ واقعہ آپکے ساتھ پیش نہ آیا ہو۔

نمبر شمار		ہاں	نہیں
2	کیا آپ کبھی کسی تباہی میں گھرے تھے جیسے کہ زلزلہ، جنگل میں لگی آگ، بھاری آندھی، طوفان یا سیلاب؟		
3	کیا آپ کے ساتھ کوئی بُرا حادثہ پیش آیا تھا جیسے کہ کار کا حادثہ یا پھر آپ گرے ہوں؟		
4	کیا آپ اس جگہ پر موجود تھے جہاں آپ کے اطراف جنگ ہو رہی تھی؟		
5	کیا آپ کو کبھی گھر میں ضرب، مُکا یا زور سے ٹھوکر ماری گئی (اس میں بہن بھائیوں کے درمیان کھیل کھیل میں لڑائی کو شامل نہ کریں)؟		
6	کیا آپ نے گھر میں اپنے خاندان کے کسی فرد کو ضرب، مُکا یا زور سے ٹھوکر کھاتے ہوئے دیکھا ہے (اس میں بہن بھائیوں کے درمیان کھیل کھیل میں لڑائی شامل نہ کریں)؟		
7	کیا آپ کو آپ کے اسکول میں محلے میں یا قصبے میں مارا گیا، گولی کا نشانہ بنایا گیا یا شدید زخمی کرنے کی دھمکی دی گئی؟		
8	کیا آپ نے کبھی کسی ایسے شخص کو دیکھا جسے مارا گیا، گولی کا نشانہ بنایا گیا یا قتل کیا گیا ہو؟		
9	کیا آپ نے کبھی کوئی لاش دیکھی؟ (اس میں جنازے کو شامل نہ کریں)؟		
10	کیا کبھی کسی نے آپ کے جسم کے پوشیدہ حصوں کو چھوا جبکہ آپ ایسا نہیں چاہتے تھے؟		
11	کیا آپ نے اپنے کسی پیارے یا دوست کی پرتشدد موت یا شدید زخمی ہونے کے بارے میں سنا یا دیکھا؟		
12	کیا جب کبھی آپ بہت بیمار یا بری طرح زخمی ہوئے تو آپ کا بہت خوفزدہ کرنے والا اور درد سے بھرپور علاج ہوا؟		
13	کیا آپ کو کبھی کسی سے جنسی تعلق پر مجبور کیا گیا جب کہ آپ نہیں چاہتے تھے؟		
14	کیا آپ کے کسی قریبی شخص کی موت واقع ہوئی؟		
15	کیا مذکورہ بالا بیان کی گئی چیزوں کے علاوہ بھی کوئی ایسا واقعہ پیش آیا ہے جو واقعی آپ کے لیے خوفناک اور پریشان کن تھا؟		

Figure 7: UCLA PTSD RI DSM-V

مندرجہ ذیل لسٹ ان مسائل سے متعلق ہے جو کہ کسی ناخوشگوار واقعہ کے پیش آنے کے بعد لوگوں کو درپیش ہو سکتے ہیں۔ برائے مہربانی اس ناخوشگوار واقعہ کے متعلق سوچئے جو کہ آپ کے ساتھ پیش آیا اور اب آپ کو سب سے زیادہ پریشان کرتا ہے۔ ہر ایک مسئلے کے لئے نیچے دیئے گئے نمبروں میں سے کسی ایک کے گرد دائرہ لگائیں۔(0,1,2,3,4)اور بتائیں کہ پچھلے ماہ میں یہ مسئلہ آپ کے ساتھ کتنی مرتبہ پیش آیا ہے۔ بے شک وہ ناخوشگوار واقعہ آپ کے ساتھ بہت پہلے پیش آیا تھا۔

آپ اس بات کا تعین کرنے کے لئے کہ پچھلے ماہ میں کتنی بار یہ مسئلہ آپ کے ساتھ پیش آیا۔ فریقو نسی ریٹنگ شیٹ (rating sheet)کا اوتھمال کر سکتے ہیں۔

نمبر شمار	گزشتہ ماہ میں کتنی بار	بالکل نہیں	تھوڑا سا	کبھی کبھار	کافی وقعہ	بہت وقعہ
1.	میں جن خطرات اور چیزوں سے خوفزدہ ہوں اُن کو تلاش کرتا رہتا / رہتی ہوں (مثلاً: اپنے کندھے کے پار دیکھنا جب کہ وہاں کچھ نہ ہو)					
2.	میرے خیالات کے مطابق میں بُرا / بُری ہوں۔					
3.	میں اُن لوگوں، جگہوں یا چیزوں سے دور رہنے کی کوشش کرتا / کرتی ہوں جن کو دیکھ کر مجھے واقعے کی یاد آجاتی ہے۔					
4.	میں فوراً پریشان ہو جاتا / جاتی ہوں یا بحث و مباحثہ اور جسمانی لڑائی میں پڑ جاتا / جاتی ہوں۔					
5.	میں محسوس کرتا / کرتی ہوں کہ میں دوبارہ اُس وقت میں چلا گیا / گئی ہوں جب وہ بُرا واقعہ پیش آیا تھا۔ جیسا کہ وہ سب دوبارہ ہو رہا ہے۔					
6.	میں محسوس کرتا / کرتی ہوں کہ جو کچھ بھی ہوا گھناؤنا اور شدید تھا۔					
7.	میں اپنے خاندان یا دوستوں کے ساتھ وہ چیزیں کرنا یا کچھ اور چیزیں کرنا پسند نہیں کرتا / کرتی جو کبھی کرنا پسند کرتا / کرتی تھی۔					
8.	مجھے توجہ دینے یا توجہ مرکوز کرنے میں مشکل پیش آتی ہے۔					
9.	مجھے اس طرح کے خیالات آتے ہیں کہ "دنیا واقعی خطرناک ہے"					
10	مجھے جو کچھ ہوا اُس کے متعلق بُرے خواب آتے ہیں یا دوسرے بُرے خواب آتی ہیں۔					
11	جب مجھے کوئی چیز یاد دلاتی ہے کہ کیا ہوا تھا تو میں پریشان، خوفزدہ یا اداس ہو جاتا / جاتی ہوں۔					

Figure 8: UCLA PTSD RI DSM-V

12	مجھے خوشی یا محبت کو محسوس کرنے میں دشواری ہوتی ہے۔					
13	میں کوشش کرتا / کرتی ہوں کہ جو کچھ ہوا تھا اُس کے بارے میں نہ تو کچھ سوچوں نہ ہی محسوس کروں۔					
14	جب مجھے کوئی چیز یہ یاد دلاتی ہے کہ کیا ہوا تھا، میرے جسم میں شدید احساسات ہوتے ہیں جیسا کہ میرا دل تیز دھڑکتا ہے، میرا سر دُکھتا ہے یا میرے پیٹ میں درد ہوتا ہے۔					
15	میں اسے شدید غصے ہوتا / ہوتی ہوں کہ جس نے وہ بُری چیز ہونے دی، اُسے روکنے کی زیادہ کوشش نہیں کی نہ ہی بود میں مدد کرنے کی۔					
16	میں ایسی سوچیں رکھتا / رکھتی ہوں جیسے میں کبھی بھی اِس قابل نہیں ہو سکوں گا / گی کہ دوسرے لوگوں پر اعتبار کروں۔					
17	میں لوگوں کے درمیان ہوتے ہوئے بھی تنہا محسوس کرتا / کرتی ہوں۔					
18	ناچاہتے ہوئے بھی اِس حادثے سے متعلق پریشان کُن خیالات، تصاویر اور آوازیں میرے ذہن میں آجاتی ہیں۔					
19	میں محسوس کرتا کرتی ہوں کہ جو کچھ بھی ہوا اُس میں سے کچھ میرا بھی قصور تھا۔					
20	میں جان بوجھ کر اپنے آپ کو تکلیف دیتا / دیتی ہوں۔					
21	مجھے نیند آنے میں مشکل ہوتی ہے، بار بار جاگ جاتا / جاتی ہوں یا دوبارہ سونے میں مشکل پیش آتی ہے۔					
22	مجھے جو کچھ بھی ہوا اُس پر شرمندگی اور ندامت کا احساس ہوتا ہے۔					
23	مجھے جو واقعہ پیش آیا اُس کے اہم حصوں کو یاد رکھنے میں مشکل پیش آتی ہے۔					

Figure 9: UCLA PTSD RI DSM-V

24	میں آسانی سے چونک جاتا/جاتی ہوں یا اُچھل پڑتا/پڑتی ہوں جب میں اونچی آواز سنوں یا جب کوئی چیز مجھے حیران کرتی ہے۔					
25	میں ڈر اور خوف محسوس کرتا ہوں/کرتی ہوں۔					
26	میں پُرخطر اور غیر محفوظ کام کرتا/ کرتی ہوں جو مجھے یا کسی اور کو حقیقت میں تکلیف دے سکتے ہیں۔					
27	جو کچھ بھی ہوا میں اس کے لیے کسی کے پاس واپس جانا چاہتا/چاہتی ہوں۔					

With Dissociative Symptoms (Dissociative Subtype)

28	مجھے ایسا محسوس ہوتا ہے کہ میں اپنے آپ کو یا جو کہ میں کر رہا/رہی ہوں اس کو اپنے جسم کے باہر سے دیکھ رہا/رہی ہوں (جیسا کہ اپنے آپ کو فلم میں دیکھ رہا/رہی ہوں)۔					
29	میں اپنے آپکو اپنے جسم سے منسلک محسوس نہیں کرتا/ کرتی جیسا کہ میں حقیقتاً اندر موجود نہیں ہوں۔					
30	مجھے محسوس ہوتا ہے کہ میرے اردگرد کی چیزیں اجنبی، مختلف ہیں یا جیسا کہ میں دھند میں ہوں۔					
31	مجھے محسوس ہوتا ہے کہ میرے اردگرد کی چیزیں حقیقی نہیں ہیں جیسا کہ میں خواب میں ہوں۔					

Figure 10: UCLA PTSD RI DSM-V