Applied Psychological Research Journal

APRJ, **Issue 1 (2014), pp 59-69**

Practice Notes

PTSD across the lifespan: an attachment perspective

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Abstract

The following report outlines a clinical problem, Post Traumatic Stress Disorder (PTSD), and the changes in manifestation throughout life. A primary focus is on the global differences of diagnostic symptomology between childhood[1] and adulthood[2] noted in the literature. Finally a critical evaluation is offered of the application of attachment theory to explain the development of the manifestations.

Keywords: Post Traumatic Stress Disorder, Attachment theory, life span development

Introduction

PTSD is defined by the Diagnostic and Statistical Manual of Mental Disorders [DSM-V] (American Psychiatric Association [APA], 2013) as a trauma and stressor related disorder following exposure to actual or threatened death, serious injury or sexual violation. However, until recently PSTD was defined as an anxiety disorder following a traumatic event resulting in intense fear and/or helplessness (DMS-IV) (APA, 1994). The introduction of the DSM-V acknowledged the variety of expressions of distress and thus a category was developed to more accurately portray this.

The DSM-V proposes four distinct clusters: re-experiencing, avoidance, negative cognitions and mood, and arousal. The re-experiencing cluster covers spontaneous memories, recurrent dreams (related to the event), flashbacks, or other intense prolonged psychological distress. Avoidance refers to the distressing, thoughts, feelings, memories or external reminders of the traumatic experience. Negative cognitions and mood represents the range of feelings from a persistent distorted sense of self blame of self or others, estrangement from others and diminished interest in activities to an inability to remember aspects of the event. The final category arousal represents the aggressive, reckless, self-destructive behaviour, sleep disturbance and hypervigilance. This category acknowledges both the fight and flight behaviours observed following a traumatic event (APA, 2013). Table 1 outlines the criteria for a diagnosis of PTSD using the DSM-V.

Kessler, Sonnega, Bromet, Hughes, and Nelson (1995) estimated lifetime prevalence in the USA of 7.8%, with women more likely to develop PTSD following a traumatic event (10.4% women compared to 5% male). Prevalence figures for children are not widely reported. However, a national survey of mental health in over 10,000 children, reported 0.4% of children aged between 11 and 15 were diagnosed with PTSD, with

[1] Childhood refers to ages 2 – 8 years.
[2] Adulthood refers to individuals over 18 years

the same gender difference as in adult populations. Children below the age of 10 years were scarcely diagnosed with PTSD (National Collaborating Centre for Mental Health, 2005).

Difference in child and adult manifestations

The literature indicates that children exhibit a full range of PTSD symptoms but developmental aspects cause a number of the diagnostic criteria to manifest differently (Pynoos et al., 2009). The DSM-IV highlighted the differences (See table 1). However, Pynoos et al. (2009) argued that the criteria did not fully account for the developmental perspective of PTSD symptoms. These authors suggest that symptom manifestation of PTSD in children to adolescents reflects disturbances in the development of the maturation-driven balance between the need for protection from others, mainly primary caregivers and the increasing self efficacy, in the face of danger.

Table 1: DSM-V criteria for PTSD taken from APA (2013)

Criterion	PTSD Symptomology	Requirements
A. Stressor	The person was exposed to: death, threatened death, actual or threatened serious injury or actual threatened sexual violence: 1. Direct exposure 2. Witnessing in person 3. Indirectly – learning that a close relative exposed to trauma. 4. Repeated or extreme indirect exposure to aversive details of the events	At least 1 required
B. Intrusion symptoms	Traumatic event persistently re-experienced through: 1. recurrent involuntary and intrusive memories (children above 6 may display through repetitive play) 2. Traumatic nightmares (children may have nightmares without the content relating to the trauma) 3. Dissociative reactions (e.g. flashbacks) – these can occur on a continuum from brief periods to complete loss of consciousness (Children may re-enact play) 4. Intense prolonged distress after exposure to traumatic reminders 5. Marked physiologic reactivity after exposure to trauma-related stimuli	At least 1 required
C. Avoidance	Persistent effortful avoidance of distressing trauma-related stimuli after the event: 1. Trauma-related thoughts or feelings 2. Trauma-related external reminders	At least 1 required
D. Negative alterations in cognitions and mood	Negative alterations in cognitions and mood that began or worsened after the traumatic event: 1. Inability to recall key features of the traumatic event (not due to head injury, alcohol or drugs) 2. Persistent negative beliefs and expectations about oneself or the world. 3. Persistent distorted blame of self or others for causing the traumatic event or resulting consequences 4. Persistent negative trauma-related emotions 5. Markedly diminished interest in pre-traumatic significant activities 6. Feeling alienated from others	At least 2 required

	7. Constricted affect: persistent inability to experience positive emotions	
E. Alterations in arousal and reactivity	Trauma-related alterations in arousal and reactivity that began or worsened after the traumatic event: 1. Irritable or aggressive behaviour 2. Self-destructive or reckless behaviour 3. Hypervigilance 4. Exaggerated startle response 5. Problems in concentration 6. Sleep disturbance	At least 2 required
F. Duration	Persistence of symptoms (criteria B-E) for more than one month	
G. Functional significance	Significant symptom-related distress or functional impairment	
H. Exclusion	Disturbance is not due to medication, substance misuse or other illness	
Specify if: with dissociative symptoms: In addition to meeting the criteria, an individual experiences high levels of either of the following in reaction to trauma related stimuli: 1. Depersonalisation: experience of being outside observer of or detached from oneself 2. Derealisation: experience of unreality, distance or distortion Specify if: With delayed expression: Full diagnosis is not met until at least 6 months after the trauma.		

The differences identified in the literature (e.g. Pynoos et al., 2009; Scheeringa, Zeanah, Drell, & Larrieu, 1995; Schwarz & Kowalski, 1991) between childhood and adulthood are summarised in Table 2, and are examined from an attachment perspective in a later section. With the development of the DSM-V the differences identified in the literature have been used to develop separate diagnostic criteria for those 6 years and under. It is suggested that with the new diagnostic criteria between 3 to 8 times more children meet criteria for PTSD than with the DSM-IV criteria (APA, 2013).

Table 2: Summary of differences in manifestation

	Child	**Adult**
Traumatic event	Fears around primary caregivers	Fears based upon objects and activities of importance at that time
Social Context	Unable to place in context	Ability to place in context
Intrusive recollections	Observed through play, behaviours Increased nightmares	Flashbacks
Self-soothe	Unable to self-sooth	Able to self-soothe
Avoidance	Unable to avoid Development of new fears	Avoid trigger situations
Activities	Reduced exploration and play	Decreased interest and participation in activities

Attachment theory

Attachment theory was introduced in the 1950s by John Bowlby (Cassidy & Mohr, 2001). He hypothesised that infants innate attachment behaviours evolved to maintain proximity to their caregivers when they perceive danger (Bartholomew & Horowitz, 1991; Howe, 2011). This theory postulates that attachments and attachment behaviours function to moderate distress throughout life. Early interpersonal experiences influence future interactions with others and methods of regulating distress through the development of internal working models [IWMs] (Berry, Barrowclough, & Wearden, 2008).

IWMs are mental representations of the self, others and relationship between self and others. The quality of relationships has a profound effect on how IWMs are viewed throughout life (Howe, 2011, p.33). IWMs employ rules that direct how emotions, attitudes and behaviours can be used to regulate emotional distress and feelings of safety. These remain relatively stable through life (Bowlby, 1980).

Research supports the link between trauma reactions and attachments in both adulthood and childhood (e.g. Charuvastra & Cloitre, 2008; George, 1996; Howe, 2011; Salo, Qouta, & Punamäki, 2005). Meins, Fernyhough, Russell and Clark-Carter (2001) suggest that a child's attachment patterns impact upon their resilience and coping strategies when faced with trauma.

Attachment styles in childhood and adulthood. Research initially focused on the secure, anxious and avoidant attachment styles originally identified in infants by Ainsworth, Blehar, Waters, and Wall (1978) and the conceptualisation of the parallel adult attachment styles in romantic relationships by Hazan and Shaver (1987). Subsequent research (Bartholomew & Horowitz, 1991) has focused on the concept that attachment relationships can be understood as regions in a two-dimensional space: *attachment anxiety* and *attachment avoidance* (Mikulincer, Shaver, & Pereg, 2003) (See figure 1).

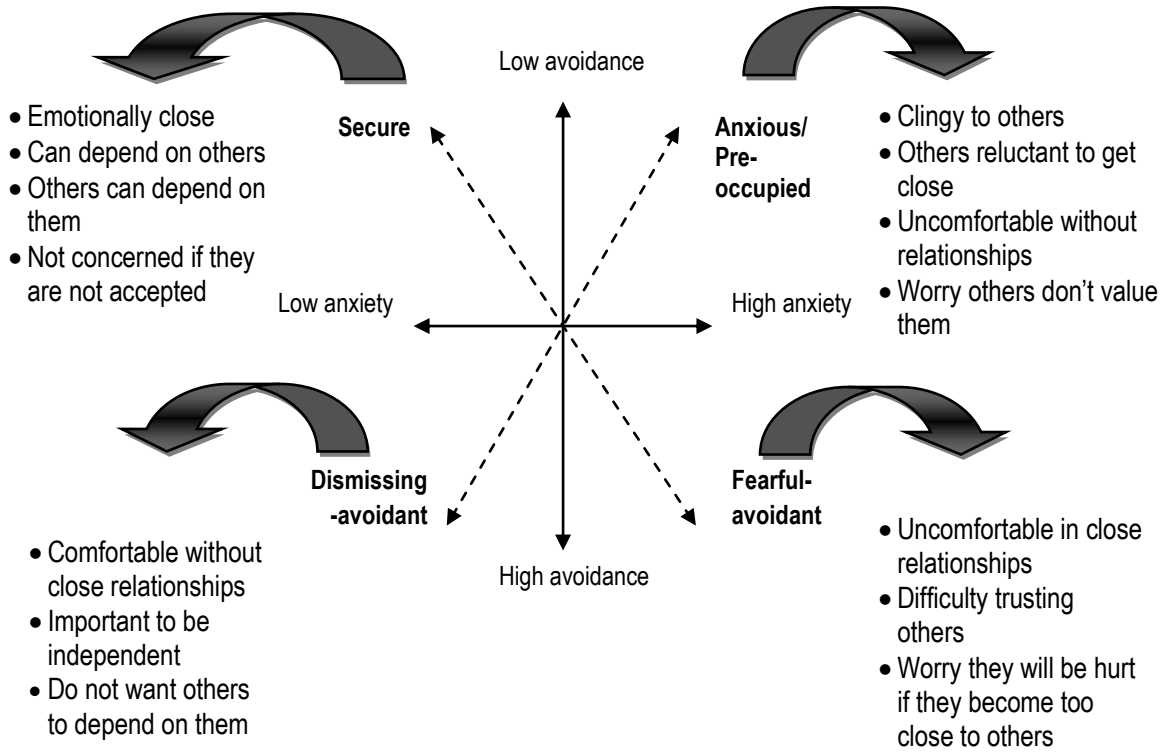

Figure 1: Adult attachment patterns – taken from Bartholomew & Horowitz (1991)

Secure attachment styles experience low anxiety and avoidance. Individuals experience a sense of attachment security, comforted by closeness, interdependence and reliance on support seeking and other constructive means of coping with stress. Anxious attachment styles indicate high anxiety and low avoidance. They are defined by a need for closeness, worries about relationships and a fear of being rejected. Avoidant styles are defined as compulsively self-reliant and prefer emotional distance from others. Infant avoidant attachment styles as defined by Ainsworth et al., (1978) exhibit high avoidance and low anxiety, whereas Bartholomew and Horowitz (1991) made a distinction within avoidant adults namely; dismissing

avoidant individuals, experience high avoidance and low anxiety and fearful avoidant individuals experience both high anxiety and high avoidance. Anxious and avoidant strategies are suggested to develop from a failure to seek proximity to relieve distress and secondary strategies are developed to aid the desired response (Mikulincer et al., 2003).

PTSD from an attachment perspective

Pynoos et al. (2009) suggested that attachment theory could aid the understanding of the maturational and experiential processes in the development of PTSD. Traumatic stress is a breakdown in an individual's ability to regulate their internal state (van der Kolk, 2005), attachment theory proposes that innate actions of individuals lead them to seek others to regulate their internal state (Berry et al., 2008).

Attachment and activation of threat system. According to this perspective the natural instinct when stressed or threatened is to seek social support (Howe, 2011). Bowlby (1953) argued that the views of the self and future relationships are not only influenced by the quality of early attachments, but also the experiences of loss and separation from attachment figures. Infants achieve their goal by developing a strategy that is tailored to the specifics of their care-giving environment (Main, 1990).

Fear and attachment systems are suggested to run in synchrony (Kobak, Rosenthal, & Serwick, 2005). When the attachment system is activated individual's exhibit attachment behaviours in which the goal is to recover physiological and physical proximity to their caregiver (Howe, 2011). Shaver and Mikulincer (2002) proposed a model of activation and dynamics of attachment systems to aid understanding of the affect regulation strategies (See figure 2). The model consists of three components. The first component monitors and appraises threatening events. It activates the primary attachment strategy - proximity seeking. The second component is accountable for individual differences in sense of security, monitoring and appraising the availability of external or internalised attachment figures. The third component monitors and appraises the viability of proximity seeking to cope with attachment insecurity and distress; it is responsible for the individual differences in the development of secondary attachment strategies, such as increasing behaviours to gain proximity and decreasing behaviours to avoid proximity.

It is proposed that when the attachment system is activated, the primary attachment strategy leads individuals to turn to internalised representations or to actual support from their attachment figures. Dependent upon an individual's experience, increased age and development, results in an increased ability to gain comfort from symbolic representations of attachment figures. There is no age where an individual is completely free from the reliance of others (Mikulincer et al., 2003).

Mikulincer et al. (2003) reported empirical support for proximity seeking component of this model. Research indicated that in times of need infants show a clear preference to their caregivers, they engage in proximity seeking behaviours and are soothed by the presence of their caregivers (e.g. Ainsworth et al., 1978). Parallel studies of adult behaviour indicate that individuals utilise those around them as sources of support (Lazarus & Folkman, 1984).

When the attachment system is activated the search for the attachment figure (literally or symbolically) begins. It is proposed that over time attachment security is broadened and developed. Through experience and cognitive development the role of the attachment figure becomes internalised and part of the individual's personal strength and resilience. In adulthood the literal question regarding the availability of the attachment figures is transformed into a question of adequacy of internal and external attachment related resources for coping with stress (Mikulincer et al., 2003).

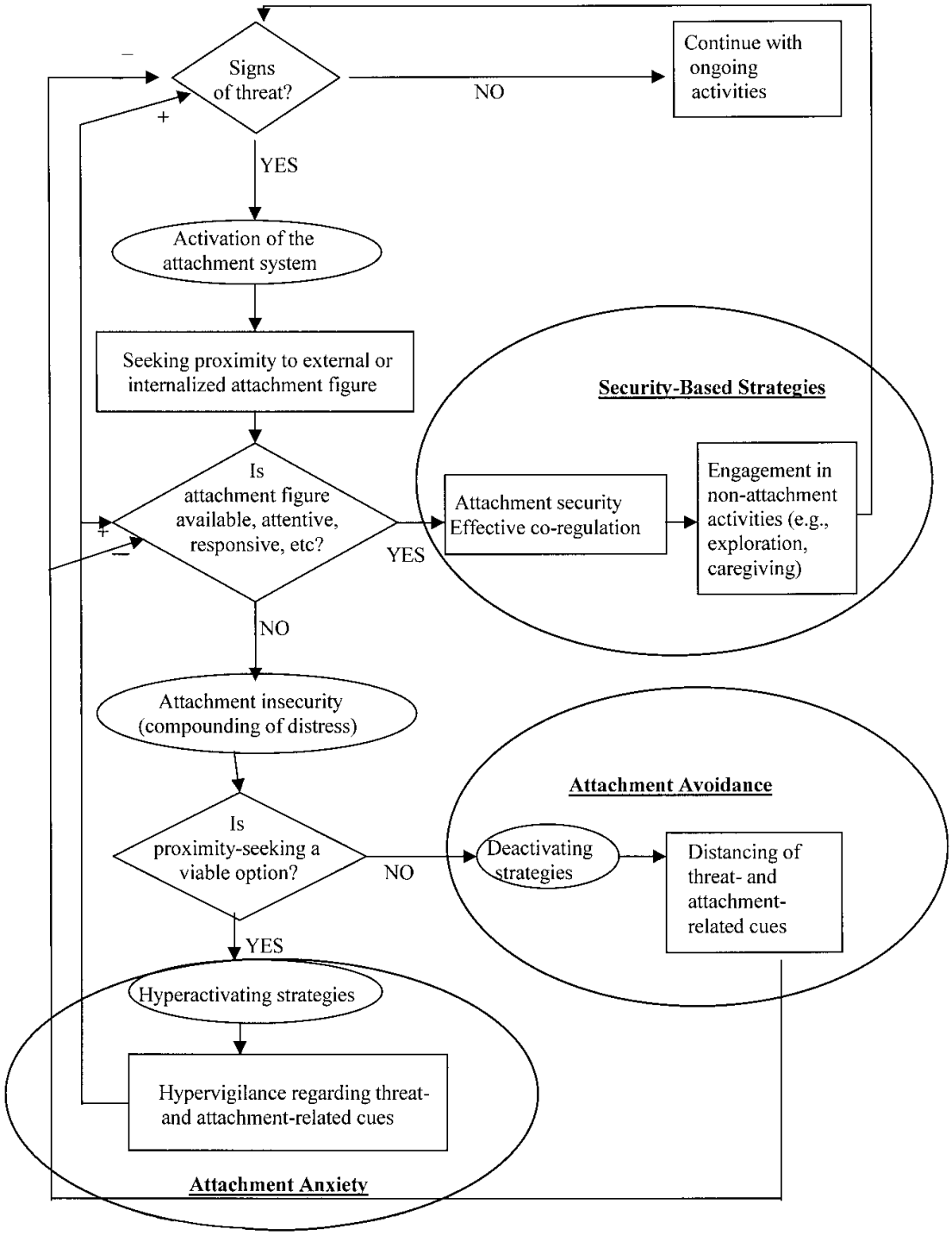

Figure 2: An adaptation of Shaver and Mikulincer's model of activation and dynamics of attachment system (Shaver & Mikulincer, 2002) – Taken from Mikulincer, Shaver, & Pereg (2003)

Attachment styles and PTSD. Attachment figures provide a source of learning skills such as regulating, communicating and labelling emotions. An understanding of others desires and beliefs is developed through interactions with caregivers (Howe, 2011; Meins et al., 2001; van der Kolk, 2005). The caregiver's ability to provide resources for regulating and soothing arousal has a profound effect upon the

development of the child, neurologically, physiologically and psychosocially (Howe, 2011; Meins et al., 2001). These early experiences are hypothesised to be crucial in determining whether the trauma an individual experiences becomes associated with posttraumatic stress or posttraumatic growth. The early learning experiences of an individual help develop their internal working models of their self worth, benevolence of others and security of the environment (Salo et al., 2005). It is suggested that children who are unable to gain protection or are unsuccessfully soothed by their caregivers do not have the opportunity to learn to regulate arousal and label emotions (van der Kolk, 2005). Dissociation between their emotions and cognitions leaves the child unable to develop or execute appropriate plans of action resulting in unresolved fear and continued high state of arousal (Howe, 2011; van der Kolk, 2005).

Bowlby (1973, 1980) hypothesised that the reduced resilience of insecurely attached individuals, creates negative affect and poses an overall risk. An individual's unstable and inadequate emotional regulation abilities, affect the development of internal coping resources for future life problems (Bowlby, 1973; Mikulincer, Shaver, & Horesh, 2006). Empirical studies have supported a correlation between previous and current attachment experiences and a predisposition to development of PTSD following traumatic events (e.g. Besser & Neria, 2010; Mikulincer, Shaver, & Horesh, 2006). Securely attached individuals are reported to deal with distress by turning to others for emotional and instrumental support. Whereas, insecure individuals report less support from others (Besser & Neria, 2010; Mikulincer & Shaver, 2007). It is hypothesised that the mobilisation of internal or external forms of security during and after a traumatic experience is a protective factor against the development of PTSD (Mikulincer et al., 2006). These authors highlighted that although secure attachments are a protective factor they do not eliminate the possibility of developing PTSD. For instance, events that involve interpersonal torture are suggested to shatter an individual's positive IWMs, activating negative internal representations of self and others, undermining the protective action of their previously secure attachments (Mikulincer et al., 2006).

Research has identified differences in attachment styles and PTSD symptoms. It is hypothesised that avoidant individual's defensive deactivating strategies create initial security but impair their ability to confront life adversities. When faced with prolonged, demanding stressful experiences that require active confrontation, deactivating strategies are no longer adaptive, revealing the individual's sense of inadequacy. Furthermore due to the deactivating nature of avoidant individuals it is suggested that the suppression of distress can lead to its manifestation in somatic symptoms or other health problems, which may delay the diagnosis of PTSD. If the traumatic event continues and challenges their defensive strategies, the strategies breakdown and may potentially cause the development of symptomology associated with a PTSD diagnosis (Mikulincer et al., 2006).

Development of PTSD symptomology - Traumatic event. There are specific trauma objective features in children, which have special salience from a developmental and etiological standpoint. For example, hearing parents distressed cries, experiencing the physical inability of a parent's ability to protect and being physically trapped (Pynoos et al., 2009). From an attachment perspective children are reliant upon their caregivers for protection and sense of security. A call of distress from a primary caregiver threatens the child's security and protection. Reliance upon primary caregivers shifts across the lifespan. Adolescence to adulthood sees a shift from parents/guardians to close friends, lovers or spouses (Howe, 2011). The attachment to primary caregivers does not cease but there is a reduction in immediate dependence (Ainsworth, 1989). Adult relationships are seen as a product of interactions with early attachment figures (Bowlby, 1973). As individuals develop and mature attachments become more sophisticated, with improved ability to make sense of relationships and social situations. Attachment hierarchies extend and IWMs are developed by life experiences. Threats that activate an adult's attachment system are in line with what is important to the individual at the time, for example being made redundant, or a spouse threatening to leave (Howe, 2011).

Intrusive recollections. The literature indicates developmental differences in the manifestations of intrusive recollections (e.g. Pynoos & Nader, 1989; Pynoos et al., 2009; Scheeringa, Zeanah, Drell, & Larrieu, 1995). The individual's current developmental stage is suggested to determine the expression of re-experiencing symptoms. Children rarely report experiencing flashbacks (Pynoos et al., 2009; Scheeringa et al., 1995). Scheeringa et al. (1995) and Schwarz and Kowalski (1991) highlighted that children often experience increased frequency of nightmares. Intrusive recollections are suggested to manifest in play, behaviour and thought (Pynoos et al., 2009). Play is identified as a form of preverbal communication (e.g. Vygotsky, 1978). According to attachment theorists the ability to communicate and label emotions verbally is developed through interactions with their primary caregivers (van der Kolk, 2005). As the reliance upon the primary caregivers shifts, children develop skills through interaction with other attachment figures including their peers. Given the correlation between insecure attachments and the development of PTSD (e.g. Besser & Neria, 2010; Mikulincer et al., 2006), the reports of flashbacks suggest that individuals have acquired communication skills despite their previous insecure attachments. It could be assumed that this skill was acquired through the influence of others around them. However, the distress caused by the flashbacks indicate that these individuals are still unable develop methods to resolve the trauma.

Self-soothing. Pynoos et al. (2009) reported that children who exhibit PTSD symptoms are unable to self-soothe after a trigger experience. Attachment theory postulates that insecurely attached children are unlikely to have been soothed by their caregiver and do not developed skills to soothe themselves (Howe, 2011). The ability to self-soothe in adulthood could be explained by the development of self-protective and defensive strategies in insecurely attached individuals to increase their sense of control (Howe, 2011). However, this is a tentative link. When faced with a traumatic experience insecure individuals compensatory mechanisms are rarely utilised (Howe, 2011) and hence would indicate an inability to self-soothe. Alternatively the development of understanding wider social contexts through interaction with others provides another means for adults to understand the nature of a trigger and regulate their arousal.

Avoidance. Children are typically reliant upon others, unlike adults they do not have the ability to avoid situations. They cannot utilise this as a form of protection and rely upon caregivers (van der Kolk, 2005). In the absence of the physical ability to remove themselves, avoidance symptomology is suggested to manifests differently in children, such as developing new fears, which are often misdiagnosed as phobias (Pynoos et al., 2009). Cassidy and Mohr (2001) suggest that when a child is in a situation whereby they do not have an organised behavioural strategy to reduce distress they will typically revert to behavioural responses of freezing, disorientation or disorganisation. Both adults and children aim to avoid specific triggers however the difference occurs in the individual's ability to achieve this internally or externally.

Social Context. Developmentally children are embedded within the here-and-now and struggle to gain perspective on the wider context. Children look to their caregivers to provide this information and help develop the IWMs. When caregivers do not provide this information and fail to regulate arousal the child becomes unable to organise and categorise the experience coherently (Howe, 2011). Schwarz and Kowalski (1991) identified that older children and adults experienced more anger towards the traumatic event than younger children due to their ability to place the event in a wider social context. From an attachment perspective the development of the understanding of social contexts and the desires and beliefs of others is learnt through interactions with attachment figures (Cassidy & Mohr, 2001). As individuals progress into adulthood their interactions with others help to develop the understanding of their emotions, desires and beliefs. Hence as adults a more developed level of contextualisation to the event can occur.

Activities. Pynoos et al. (2009) reported a reduction in children's explorative play. Attachment theory proposes that activation of fear and attachment systems is detrimental to other behavioural systems,

for example explorative and sociable systems. Exploration and play are sources for development of IWMs through creating opportunities to learn about and adapt to the physical and psychosocial environment. Early attachment studies indicated that securely attached individuals continued to explore if they had a secure base (Ainsworth et al., 1978). Positive IWMs that others are reliable and will be there to protect them, enabled the security to explore (Howe, 2011). Children who have experienced disorganised/insecure attachments are likely to have experienced times when their primary caregivers were inconsistent and unreliable hence IWMs are developed in line with this. Insecurely attached individuals require other methods to achieve security. These individuals may remain alert to any danger restricting their ability to participate in explorative play (Howe, 2011). Adults exhibit reduced interest and participation of significant activities. Although the manifestation is observed as different the attachment behaviour has the same function however, the shift in secure base may create the developmental difference.

The utility of attachment theory in PTSD

Attachment theory is proposed to be applicable throughout life (Berry et al., 2008) and is an important interpersonal dimension in relation to traumatic events and reactions (O'Connor & Elklit, 2008). The present report offers an application of attachment theory to six global symptom developments of PTSD.

Growing evidence indicates a correlation between attachment styles and the development of PTSD (e.g. Besser & Neria, 2010; Mikulincer, Shaver, & Horesh, 2006). Attachment theory offers an explanation for the inability to develop adaptive strategies to deal with traumatic events following early attachment patterns disrupting development, and the development of skills through the expansion and shift of attachment figures. Mikulincer et al. (2006) offered an explanation for the development of PTSD in securely attached individuals whereby previous protective positive IWMs are shattered.

Attachment theory is less effective in accounting for the gender bias towards females developing PTSD. Although there are no prevalence figures for children under 10 years, infant studies have not supported the proposed gender differences. These changes in attachments have been proposed to occur due to hormonal, neurophysiological and cognitive changes rather than socio-emotional experiences (Ainsworth, 1991).

Attachment theory has been proposed as central to the development of affect regulation and critical to an individual's resilience and coping (e.g. Berry et al., 2008). The present report highlights that symptomology changes do not reflect changes in attachments behaviours but a change in the life stage of the individual and the importance of current attachments at that time. However, attachment theory has limited ability to provide a full account of the development. Additional theoretical models provided further understanding of these developments, for example, attachment theory offered an understanding of the manifestation of intrusive thoughts expressed through play, however to enable a complete understanding, developmental literature from Vygotsky (1978) has been used to provide an account of the importance of play in communication development.

The role of IWMs poses an additional problem. The relative stability of IWMs provides a predictive value for attachment behaviours. Whilst the ability to amend these over time may offer clinical utility for intervention, it potentially leads attachment theory to fall into the realms of cognitive theory whereby beliefs about relationships with others are altered through experience. This poses the question whether attachment theory can be utilised as a single theory.

In contrast the integrative nature of attachment theory is a potential strength. Attachment theory is based upon the idea of innate behaviours to maintain safety; this is in line with evolutionary ideas. The concept of IWMs highlights the integrative ideas within attachment theory providing a link between attachment and cognitive theory. The founder of attachment theory, Bowlby, was medically and psychoanalytically trained,

furthermore Ainsworth had a grounding in developmental psychology (Howe, 2011). The influence of other theoretical perspectives potentially enhances the ability to integrate other theories successfully. For instance considering reactions to traumatic events, attachment theory can be enhanced by integrating behavioural concepts of reinforcement, and thus, the understanding of the development of IWMs can be enhanced through the exploration of the behaviours and the consequences experienced by the individual.

In conclusion attachment theory offers an explanation for the development of symptomology, in terms of changes in current attachments. As a single theory it is unable to fully account for the development in the manifestation; however the integrative nature of this theory allows for other schools of thought to be brought in to provide a more full account of this development.

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Acknowledgements go to Dr Nima Moghaddam, Personal Tutor, Trent Doctorate in Clinical Psychology, Faculty of Humanities, Languages and Social Sciences, University of Lincoln - for supervision, advice and guidance