

## A Comparison of Unresolved versus Resolved Status and its Relationship to Behaviour in Maltreated Adolescents

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**ABSTRACT** This exploratory investigation sought to both gain a better understanding of the mental representations of attachment in high-risk, maltreated adolescents and how, if at all, unresolved attachment representations are related to behavioural maladjustment. Parent ratings, self-report ratings and attachment state of mind were obtained from 34 adolescents with a history of maltreatment. Results showed that maltreated adolescents with unresolved states of mind in regard to attachment were rated higher on maladaptive behaviour and lower on adaptive behaviour than maltreated adolescents who were resolved. Implications for school-based mental health intervention and future research are discussed.

**KEY WORDS:** adolescents; attachment; behaviour problems; foster care; maltreatment; projectives

Child maltreatment has been associated with a variety of negative outcomes including impaired social relationships (Rogosch et al., 1995), depression (Toth et al., 1992), poor self-concept and motivation (Vondra et al., 1990) and delinquency and conduct problems (Cook et al., 2005; Grotevant et al., 2006; McCabe et al., 2005; Ryan and Testa, 2005). Although debate remains regarding the mechanisms responsible for this increased risk, Bowlby's attachment theory is arguably one, if not the most, relevant and empirically validated theoretical model available for understanding the divergent pathway of disturbed relationships and behaviour that maltreatment often presents (Kobak, 1999). A central premise of attachment theory is that the child's early experiences with a primary caregiver impacts the child's interpersonal

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relationships and emotional regulation across the lifespan. The theory proposes that children (and other animals) are born with a predisposition to seek proximity and comfort from attachment figures when frightened or in need of protection. Thus, the influence of attachment relationships should be particularly apparent in the domains of dependency, self-reliance, efficacy, anxiety, anger and empathy and interpersonal competence.

Bowlby (1969/1982) hypothesized that individuals construct mental representations of relationships based upon actual experiences with a primary caregiver. These 'internal working models' organize behaviour, thought, memory and defenses with regard to activation of the attachment system. Under optimal conditions of responsive and sensitive caregiving, the attachment system is flexibly integrated and organized in such a way that allows the infant to seek comfort when he/she needs it, and pursue exploration of the environment when threats in the environment are minimal. Sensitive and responsive caregiving provides the developing infant with the foundation for affect regulation, with the caregiver initially providing external regulation, and gradually transferring regulation over to the child as the child matures and is more capable of regulating affect. Under conditions associated with neglect, rejection and abuse, the child develops defensive processes that serve to keep painful feelings and thoughts from consciousness. Although Bowlby conceptualized three distinct forms of defensive exclusion – deactivation, cognitive disconnection and segregated systems – it was not until later that these defensive processes were delineated and measured (George and Solomon, 1996; George and West, 2001; George et al., 1997; Solomon and George, 1996; Solomon et al., 1995).

George and colleagues conceptualize deactivation as a process of blocking or reducing awareness of cues that might activate the attachment system. The child is thus able to effectively 'shut down' the system from being activated and avoids the possibility of experiencing rejection or disappointment. This type of defensive process is typically associated with children classified as 'avoidant'. In the defense of cognitive disconnection, the child is aware of attachment-related feelings, but the defensive system employs a number of strategies to distract or 'disconnect' the individual from the source of the activation of the attachment system. This defensive process is typical of 'ambivalent' children.

Finally, Bowlby (1980) postulated the existence of segregated systems that were produced as a form of defensive exclusion to keep trauma-related attachment memories and emotions in a separate mental model. The function of this defense is to attempt to keep these painful memories from consciousness, but this cannot occur indefinitely

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(George et al., 1997). When the individual's attachment system is intensely activated, the segregated system fails and the individual's thinking and behaviour become disorganized. Main and Goldwyn (1985/1991/1994) define lack of resolution or an unresolved state of mind, as a form of dysregulation of segregated attachment systems. Bowlby (1980) linked segregated systems to pathological mourning and mental health risk. On the other hand, individuals who are *resolved*, 'employ mental strategies that integrate or contain segregated material, thus protecting the individual from becoming overwhelmed, disorganized, dysregulated, or disoriented' (George et al., 1997: 71). There is evidence that disorganized attachment (the unresolved corollary in children) places the child at significant risk for maladaptive outcomes (Allen et al., 1990; Carlson, 1998; Moss et al., 1998; Solomon et al., 1995). Not surprisingly, individuals categorized as *unresolved/disorganized* have usually experienced a death of an attachment figure or have experienced the attachment figure to behave in frightening or abusive ways (Main and Hesse, 1990; van Ijzendoorn et al., 1999), as is often the case with maltreated youngsters.

Indeed, child maltreatment has been consistently associated in the research literature with disorganized attachment (Cicchetti and Toth, 1995; Shonk and Cicchetti, 2001; van Ijzendoorn et al., 1999), however, much of the research investigating child maltreatment and attachment has focused on infants and very young children, and little research has investigated adolescents, particularly with measures utilizing analysis of defensive processes. This study sought, therefore, to investigate the relationship between unresolved attachment and behaviour in a maltreatment sample in order to better understand the impact of the presence of unresolved segregated systems on behaviour ratings as perceived by primary caregivers and the adolescents themselves. Specifically, we expected to find that an unresolved state of mind would be associated with less desirable outcomes. It is hoped that a better understanding of the contributions of attachment status may serve to inform clinical interventions in the school setting.

## **Methods**

### *Participants*

Participants were 34 adolescents with a history of maltreatment who were referred to a mental health clinic for a psychological evaluation. All evaluations were conducted by the primary investigator over a five-year period. The mean age was 14.30 years old (SD = 1.74 years) with a range of 11.67 to 17.92 years. Twenty-five (73.5%) were female and nine (26.5%) were male. The sample consisted of 21 African American

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(62%); ten Caucasian (29%); two Hispanic (6%); and one Bi-Racial (3%). The majority of the adolescents had experienced neglect (70%,  $n = 23$ ), four had experienced physical abuse (12%), five had experienced neglect and physical abuse (15%) and one had experienced neglect and sexual abuse (3%). Nineteen of the adolescents were placed in regular foster homes (56%); four were placed in designated therapeutic foster homes (12%); another nine were placed in group home placements (26.5%) and the remaining two were placed in adoptive homes (6%). The mean age at time of removal from their biological parents was 7.09 years ( $SD = 4.65$  years), and the mean number of placements was 4.03 ( $SD = 3.06$  placements), with a range of one to 15 placements. Six adolescents had been in only one placement, four had been in two, six had been in three, four had been in four, two had been in five, five had been in six, and one each had been in eight, ten and 15 placements, respectively. (The number of placements was unavailable for four cases.) The average length of time that these adolescents had been in their current placement was 15.21 months ( $SD = 28.89$  months), with a range from 1 month to 13.08 years.

*Classification procedure*

The adolescents were administered the Adult Attachment Projective developed by George et al. (1997), as one part of a larger psychological evaluation. This classification system has been validated with the Adult Attachment Interview (AAI) with overall classification agreement at 79% ( $\kappa = 0.79$ ,  $p < 0.0001$ ). Interjudge reliability is  $\kappa = 0.84$  ( $p < 0.0001$ ), and test-retest reliability is  $\kappa = 0.79$  ( $p < 0.0001$ ) (George and West, in press). The primary author had achieved reliability with George and West on over 90 cases, following training on the procedure and coding. Inter-rater reliability was calculated with a random set of 10 cases with a trained and reliable judge. Classification agreement was 90% for the Resolved versus Unresolved classification.

Fourteen adolescents were judged to be unresolved, 11 were preoccupied, five were dismissing and four were judged to be secure. In the main analyses we contrasted the 14 unresolved versus the remaining 20 resolved (whether those in the latter group are judged to be dismissing, preoccupied or secure).

*Measures*

The primary caregivers of these adolescents (typically the foster mother) completed the Parent Rating Scales of the Behavioral Assessment System for Children (BASC; Reynolds and Kamphaus, 1998). In addition, the adolescent was invited to provide self reports. The scales are listed within the Tables reported in the results section. In addition

*Webster and Hackett: Unresolved versus Resolved Adolescents***Table 1** *Cronbach's alpha internal consistency reliability estimates of parent ratings and adolescent self reports on the BASC.*

<i>Parent Rating Scales</i>	$\alpha$	<i>Adolescent Self Report Scales</i>	$\alpha$
Hyperactivity	0.809	Attitude toward school	0.764
Aggression	0.829	Attitude toward teachers	0.713
Conduct Problems	0.830	Sensation Seeking	0.618
Anxiety	0.653	Atypicality	0.776
Depression	0.844	Locus of control	0.745
Somatization	0.866	Somatization	0.579
Atypicality	0.694	Social stress	0.793
Withdrawal	0.822	Anxiety	0.868
Attention Problems	0.724	Depression	0.747
Social Skills	0.872	Sense of Inadequacy	0.793
Leadership	0.684	Relationship with parents	0.716
Externalizing Problems	0.856	Interpersonal relationships	0.744
Internalizing Problems	0.873	Self esteem	0.836
Behavioral Symptoms Index	0.912	Self reliance	0.797
Adaptive Skills	0.873	School Maladjustment	0.733
		Clinical Maladjustment	0.938
		Personal Adjustment	0.847
		Emotional Symptoms	0.865

to the BASC's widespread use among clinicians and educators, the reliabilities for all scales are reported by others to be 0.85 or higher for test-retest, and in the mid to upper 0.70s on the internal consistency measures.

The Cronbach alpha reliabilities based on sample used in the current study are reported in Table 1. below. Reliabilities under 0.70 for three of the parent rating scales (Anxiety, Atypicality and Leadership) suggest care be taken when interpreting analyses in which these data are used. A similar caution is raised regarding two of the adolescent self-report scales (Sensation Seeking and Somatization).

## Results

Due to the exploratory nature of this study and the relatively small sample size involved, for our main statistical analyses, we conducted one-tailed tests and adopted an alpha of 0.05. It is recognized that this may lead to falsely rejecting the null hypotheses (i.e. committing a 'Type I' error) yet it will also help to detect trends that can later be subject to replication. The direction of the one-tailed tests correspond to our hypotheses that the unresolved adolescents would have less favourable results.

*School Psychology International (2007), Vol. 28(3)**Preliminary analyses*

To rule out selection threats and allow for clearer conclusions about differences between resolved ( $n = 20$ ) versus unresolved adolescents ( $n = 14$ ), two-tailed  $t$ -tests were used to compare the independent samples with respect to age [ $t(32) = 0.830, p = 0.413$ ], age at removal [ $t(28) = -1.073, p = 0.293$ ], the number of placements [ $t(28) = -0.199, p = 0.844$ ], and the length of time in the current placement [ $t(31) = 0.118, p = 0.906$ ]. Similarly, chi square tests were used to compare the groups with respect to ethnicity [ $X^2(3, n = 34) = 2.859, p = 0.414$ ], sex [ $X^2(1, n = 34) = 0.311, p = 0.577$ ], the reason for removal [ $X^2(3, n = 33) = 0.840, p = 0.840$ ] and level of care [ $X^2(1, n = 34) = 2.058, p = 0.560$ ]. No evidence was found to suggest the groups varied on any of these background variables. For some cells, the expected counts fell below 5, a commonly recommended level. Yet, Glass and Hopkins (1996) report that the chi square results are robust provided the average expected counts within a table are at least equal to 2 (which is the case for these analyses). Still, it should be noted that the small sample size limits the power to detect differences and that we cannot completely rule out selection as a threat, especially since other background factors, on which we have no data collected, may differ between the group judged to be 'resolved' versus 'unresolved'.

*Parent ratings of maltreated adolescents.*

Results indicated significant group differences on the BASC Parent Rating Form for Hyperactivity [ $t(32) = -4.277, p < 0.01$ ]; Aggression [ $t(32) = -4.134, p < 0.01$ ]; Depression [ $t(32) = -2.877, p < 0.01$ ]; Atypicality [ $t(32) = -2.265, p < 0.05$ ]; Attention Problems [ $t(32) = -2.691, p < 0.01$ ]; Social Skills [ $t(32) = +2.086, p < 0.05$ ]; Externalizing Problems [ $t(31) = -2.562, p < 0.01$ ]; the Behavior Symptoms Index [ $t(31) = -4.131, p < 0.01$ ] and, Adaptive Skills [ $t(31) = +1.802, p < 0.05$ ]. As shown in Table 2, where the differences were statistically significant, the unresolved adolescents scored higher on the less desirable characteristics (e.g. hyperactivity, aggression, depression, atypicality, attention problems, externalizing problems and the behaviour symptoms index) and lower on the more desirable characteristics (e.g. social skills and adaptive skills).

*Maltreated adolescent self-reports*

Results indicated significant group differences on the BASC Self Report Form for (poor) Attitude Towards Teachers [ $t(32) = -2.432, p < 0.05$ ]; Atypicality [ $t(32) = -1.892, p < 0.05$ ]; (external) Locus of Control [ $t(32) = -2.806, p < 0.01$ ]; Somatization [ $t(30) = -2.224, p < 0.05$ ]; Social Stress [ $t(32) = -1.926, p < 0.05$ ]; Anxiety [ $t(32) = -2.480, p < 0.01$ ]; Depression [ $t(32) = -2.780, p < 0.01$ ]; Sense of Inadequacy

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**Table 2** Comparison of parent ratings on the BASC for Resolved versus Unresolved maltreated adolescents

BASC Parent Rating Scale	Resolved			Unresolved			<i>t</i>
	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	
Hyperactivity	20	54.90	11.35	14	76.21	17.76	-4.277**
Aggression	20	59.10	11.88	14	78.00	14.74	-4.134**
Conduct Problems	20	81.80	18.80	14	79.21	18.24	+0.399
Anxiety	20	55.60	13.04	14	58.43	12.13	-0.640
Depression	20	58.35	13.59	14	71.79	13.12	-2.877**
Somatization	20	56.05	18.73	14	49.71	11.30	+1.227
Atypicality	20	61.05	11.79	14	74.43	19.78	-2.265*
Withdrawal	20	56.55	11.87	14	62.21	20.45	-0.932
Attention Problems	20	64.70	8.62	14	73.64	10.74	-2.691**
Social Skills <sup>a</sup>	20	37.10	8.72	14	31.00	7.88	+2.086*
Leadership <sup>a</sup>	20	35.95	4.74	14	33.50	8.11	+1.015
Externalizing Problems	19	68.79	13.01	14	82.86	18.58	-2.562**
Internalizing Problems	19	59.21	14.33	14	62.14	9.39	-0.666
Behavioral Symptoms Index	19	62.89	9.62	14	80.29	13.41	-4.131**
Adaptive Skills <sup>a</sup>	19	35.21	6.54	14	30.64	8.03	+1.802*

\* $p < 0.05$  (one-tailed); \*\* $p < 0.01$  (one-tailed).

<sup>a</sup> For these positive outcomes, we hypothesized the Resolved group would score higher, on average. For all other outcomes, the opposite was hypothesized.

[ $t(32) = -2.201, p < 0.05$ ]; Relationships With Parents [ $t(32) = + 2.570, p < 0.01$ ]; Interpersonal Relationships [ $t(32) = + 2.123, p < 0.05$ ]; Self esteem [ $t(32) = + 2.026, p < 0.05$ ]; Self reliance [ $t(32) = + 1.945, p < 0.05$ ]; Clinical Maladjustment [ $t(30) = -2.596, p < 0.01$ ]; Personal Adjustment [ $t(31) = + 4.387, p < 0.01$ ] and Emotional Symptoms [ $t(31) = -2.999, p < 0.01$ ]. As shown in Table 3, where the differences were statistically significant, the unresolved adolescents scored higher on the less desirable characteristics [e.g. (poor) attitude towards teachers, atypicality, (external) locus of control, somatization, social stress, anxiety, depression, sense of inadequacy, clinical maladjustment and emotional symptoms index] and lower on the more desirable characteristics (e.g. relationship with parents, interpersonal relationships, self esteem, self reliance and personal adjustment).

## Discussion

The findings of this exploratory investigation suggest that having an unresolved state of mind in regards to attachment may place maltreated adolescents at greater risk for the development of behaviour

*School Psychology International (2007), Vol. 28(3)***Table 3** Comparison of Adolescent's Self Reports on the BASC for Resolved Versus Unresolved Adolescents

BASC Adolescent Self-Report Scale	Resolved			Unresolved			t
	n	M	SD	n	M	SD	
Attitude toward school (poor)	20	51.00	9.59	14	52.79	9.03	-0.547
Attitude toward teachers (poor)	20	50.45	8.38	14	59.21	11.52	-2.432*
Sensation Seeking	18	53.94	8.66	14	54.00	12.36	-0.015
Atypicality	20	49.50	9.51	14	56.36	11.58	-1.892*
Locus of control (external)	20	51.70	8.12	14	60.07	9.17	-2.806**
Somatization	18	47.11	7.60	14	54.71	10.89	-2.224*
Social stress	20	49.45	8.36	14	55.43	9.66	-1.926*
Anxiety	20	47.40	10.52	14	55.93	8.84	-2.480**
Depression	20	50.00	6.75	14	58.79	10.39	-2.780**
Sense of Inadequacy	20	51.65	10.27	14	59.93	11.53	-2.201*
Relationship with parents <sup>a</sup>	20	47.85	9.43	14	38.86	10.88	+2.570**
Interpersonal relationships <sup>a</sup>	20	55.05	2.50	14	47.86	12.50	+2.123*
Self esteem <sup>a</sup>	20	51.60	8.12	14	43.36	13.62	+2.026*
Self reliance <sup>a</sup>	20	54.15	5.69	14	45.64	15.66	+1.945*
School Maladjustment	19	52.11	7.12	14	56.57	10.46	-1.461
Clinical Maladjustment	19	49.11	8.72	13	57.69	9.86	-2.596**
Personal Adjustment <sup>a</sup>	19	53.42	5.60	14	41.86	9.49	+4.387**
Emotional Symptoms	19	47.84	7.46	14	58.36	11.45	-2.999**

\*p < 0.05 (one-tailed); \*\*p < 0.01 (one-tailed).

<sup>a</sup>For these positive outcomes, we hypothesized the resolved group would score higher, on average. For all other outcomes, the opposite was hypothesized.

problems and may interfere with the development of appropriate adaptive behaviour. These difficulties may, in turn, place them at greater risk for the development of psychopathology, school failure and chronic interpersonal difficulties.

#### *Group differences on measures of behavioural maladjustment*

The results of this study found that parent ratings on six BASC subscales (Hyperactivity, Aggression, Depression, Atypicality, Attention Problems and Social Skills) were found to differ, on average, between the groups of Resolved versus Unresolved adolescents. In addition, there was a significant difference between Unresolved and Resolved adolescents on three of the composite scales (Externalizing Problems, Behavioural Symptoms Index and Adaptive Skills). In particular, primary caregivers of maltreated, but Resolved adolescents rated them lower than did the primary caregivers of maltreated, Unresolved adolescents in Hyperactivity, Aggression, Depression, Atypicality and

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Attention Problems. This finding suggests that foster mothers perceived Unresolved, maltreated adolescents to be more impulsive, more argumentative and physically aggressive, more depressed, to be more easily distracted and to exhibit more evidence of poor contact with reality than Resolved, maltreated adolescents. In addition, the mean scores on these scales were in the clinically significant range for the Unresolved group, while the mean scores for the Resolved group were not. This indicates a much higher level of maladjustment in the identified areas for Unresolved, maltreated adolescents.

Of particular interest is that there was no difference between Resolved and Unresolved mean scores on the Conduct Disorder Scale; with both groups' ratings in the clinically significant range. This finding is consistent with other research in larger studies which demonstrate a relationship between maltreatment and delinquency (Grotevant et al., 2006; McCabe et al., 2005), but suggests that an Unresolved state of mind in regard to attachment may place the adolescent at greater risk for the development of additional problems associated with impairments in self-regulation, impulse control and stress coping.

Adolescent self-reports were found to differ, on average, between the groups of Resolved versus Unresolved on 12 of the BASC subscales (Attitude to Teachers, Atypicality, Locus of Control, Somatization, Social Stress, Anxiety, Depression, Sense of Inadequacy, Relationship with Parents, Interpersonal Relationships, Self-Esteem and Self-Reliance) and three BASC composites (Clinical Maladjustment, Personal Adjustment and Emotional Symptoms Index). These findings indicate that Unresolved, maltreated adolescents report feeling more symptoms of anxiety and depression, feel more inadequate, have lower self-esteem and self-reliance, poorer contact with reality and poorer relationships with teachers, parents and peers. In addition, Unresolved adolescents also reported a more external locus of control than Resolved adolescents.

Of interest are the overlapping scales of Atypicality and Depression on the parent and self-report ratings. Both the foster mothers and the adolescents themselves rated the Unresolved group as being more depressed and as having poorer contact with reality than the Resolved group. It should be noted, however, that although the two groups were statistically different, none of the self-report scales were in the clinically significant range, and only one scale, Locus of Control, was in the at-risk range for the Unresolved group. Thus, although the differences are significant and meaningful, they may not ultimately have clinical relevance and therefore treatment implications.

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*Clinical implications*

While the small sample size mandates careful consideration of generalizability, the results suggest the following issues may be relevant. Of particular clinical relevance was the finding in this study that an Unresolved state of mind placed adolescents with a history of maltreatment at greater risk for the development of a number of behavioural and emotional problems that have, at their core, impairments in self-regulation, impulse control and stress coping. This finding points to the importance of the adolescent resolving in a coherent and integrated fashion, their earlier traumas and losses. Given that an Unresolved state of mind is conceptualized as an attachment relationship disturbance, it is through supportive relationships that trauma and loss can be resolved. Ideally, resolution would be best accomplished by a concerted and coordinated effort from supportive caregivers, teachers, child welfare workers and mental health professionals. Slade (2004) proposes that the mental health professional should listen for coherence, for themes of loss and abandonment, qualities of attributions and defenses that emerge when the individual discusses interpersonal experiences. She argues that it is not necessary to measure the individual's attachment classification, since it is the processes they represent that are the focus of intervention. For example, unresolved individuals experience frequent crises and have difficulty connecting current thoughts and feelings to past losses and traumas (Bernier and Dozier, 2002).

Allen et al. (1996) hypothesized that it would be important for mental health professionals to attend to the distortions and incoherencies associated with insecure states of mind. Cognitive-behavioural approaches may be a useful to help Unresolved adolescents first identify and then modify the cognitive distortions that they have developed concerning expectations of the self and others in current relationships. Promoting the development of 'mentalizing' – the capacity of individuals to accurately perceive, anticipate and act on both their own mental states and the mental states of others, may also facilitate the resolution of trauma and loss. Fonagy and colleagues (e.g. Fonagy and Bateman, 2006; Twemlow et al., 2005a) have identified three essential tasks in their 'mentalization-focused' psychotherapy, that parallel, in a more focused way, those involved in cognitive-behavioural approaches. These tasks involve the exploration of thoughts and feelings in a safe environment, encouraging the individual to think reflectively about the actions of self and others and an integration of thought and feelings. The overall goal is to help the individual recognize, process and integrate past losses and trauma in such a way that it no longer overwhelms them and drives their behaviour.

In addition to the provision of individual or family-based interven-

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tions, the school-based mental health professional can also provide consultation to teachers and other school personnel (Webster and Knotek, this issue). Most teachers have had little or no education regarding attachment theory and its implications for interpersonal functioning. They typically view students' behaviour as purposeful and readily apparent, e.g. the child just wants attention or wants to get out of work (Twemlow et al., 2005b), and do not readily recognize or even consider the intra- and inter-personal aspects of the child's behaviour. The school-based mental health professional can thus provide this conceptual framework for the teacher or consultee, not through instruction, but by contextualizing the adolescent's behaviour with the goal of helping the consultee gain a better understanding of the internal and interpersonal functions of the behaviour from an attachment perspective. This broadens the consultee's perspective and range of options for intervening with the student beyond that of coercion and punishment.

Finally, the school-based mental health professional can provide systems-level consultation that promotes the development of a positive social climate and positive interactions among peers, teachers, administration and staff. For example, the Peaceful Schools Experiment (Fonagy et al., 2005; Twemlow et al., 2005b), is a systems-level intervention that is based upon principles of attachment, mentalizing and power dynamics. The components of the programme include positive climate 'campaigns', proactive classroom management that utilizes class discussions and reflections for disciplinary behaviour, peer and adult mentorship on the playground, an approach to physical education that includes non-aggressive physical and cognitive strategies for protection and reflection time at the end of each day where classroom members engage in a discussion of the day's events. The overall goal of the programme is to embed mentalizing principles (derived from attachment theory) into the rules, policies and procedures of the school system, and thus encourage individuals to become more psychologically aware and decrease negative interactions while promoting positive interactions. Nine elementary schools have participated in a study of this programme's overall effectiveness, with approximately 3,600 children being exposed to the interventions. Results indicated that the Peaceful Schools Approach showed a decrease in peer-reported victimization, aggression and aggressive bystanding, along with a decrease in off-task behaviour and disruptive classroom behaviour.

*Concluding comments*

The implications of the findings from this study are constrained by the small sample size that precludes an analysis of various associations between sub-classifications and particular outcomes. For example,

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Warren et al. (1997) found that children who were, at age 16, identified as meeting the criteria for an anxiety disorder were more likely to have been classified as having an anxious/resistant (ambivalent) attachment as an infant. In addition, Eisenberg et al. (2001) found that internalizing and externalizing problems were characterized by two distinct types of emotion and regulation that characterize them. It may be that the sub-classifications of the Unresolved group predispose the adolescent to a particular development pathway, but this sample size is insufficient to detect these potential links. In addition, the inferences that can be drawn from these results are limited by the fact that they are not longitudinal, and thus causal relationships cannot be determined. It cannot be known, for example, the cause, timing or duration of the adolescents' Unresolved status, and the associated behavioural and emotional difficulties. The results, however, are consistent with Bowlby's predictions and other research investigating the relationships between child maltreatment and emotional and behavioural difficulties, and the clinical implications are consistent with a developmental attachment approach.

### References

- Allen, J. P., Hauser, S. T. and Borman-Spurrell, E. (1996) 'Attachment Theory as a Framework for Understanding the Sequelae of Severe Adolescent Psychopathology: An 11-Year Follow-Up Study', *Journal of Consulting and Clinical Psychology* 64(2): 254–63.
- Bernier, A. and Dozier, M. (2002) 'The Client-Counselor Match and the Corrective Emotional Experience: Evidence from Interpersonal and Attachment Research', *Psychotherapy: Theory, Research, Practice, Training* 39(1): 32–43.
- Bowlby, J. (1969/1982) *Attachment and Loss*, Volume 1. New York: Basic Books (originally published in 1969).
- Bowlby, J. (1980) *Attachment and Loss*, Volume 3. New York: Basic Books.
- Carlson, E. A. (1998) 'A Prospective Longitudinal Study of Disorganized/Disoriented Attachment', *Child Development* 69: 1107–28.
- Cicchetti, D. and Toth, S. L. (1995) 'A Developmental Psychopathology Perspective on Child Abuse and Neglect', *Journal of the American Academy on Child and Adolescent Psychiatry* 34: 1067–91.
- Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., Cloitre, M., DeRosa, R., Hubbard, R., Kagan, R., Liataud, J., Mallah, K., Olafson, E. and van der Kolk, B. (2005) 'Complex Trauma in Children and Adolescents', *Psychiatric Annals* 35: 390–93.
- Eisenberg, N., Cumberland, A., Spinard, T. L., Fabes, R. A., Shepard, S. A., Reiser, M., Murphy, B. C., Losoya, S. H. and Guthrie, I. K. (2001) 'The Relations of Regulation and Emotionality to Children's Externalizing and Internalizing Problem Behavior', *Child Development* 72(4): 1112–34.
- Fonagy, P. and Bateman, A. W. (2006) 'Mechanisms of Change in Mentalization-Based Treatment of BPO', *Journal of Clinical Psychology* 62(4): 411–30.

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- Fonagy, P., Twemlow, S., Vernberg, E., Sacco, F. and Little, T. (2005) 'Creating a Peaceful School Learning Environment: The Impact of a Anti-Bullying Program on Educational Attainment in Elementary Schools', *Medical Science Monitor* 11(7): 317–25.
- George, C. and Solomon, J. (1996) 'Representational Models of Relationships: Links Between Caregiving and Representation', *Infant Mental Health Journal* 17: 198–216.
- George, C. and West, M. (2001) 'The Development and Preliminary Validation of a New Measure of Adult Attachment: The Adult Attachment Projective', *Attachment and Human Development* 3: 30–61.
- George, C. and West, M. (in press) *The Adult Attachment Projective: A New Assessment of Adult Attachment*. New York: Guilford Publications.
- George, C., West, M. and Pettem, O. (1997) *The Adult Attachment Projective*. Unpublished Attachment Measure and Coding Manual. Mills College, Oakland, CA.
- Glass, G. V. and Hopkins, K. D. (1996) *Statistical Methods in Education and Psychology*, 3rd edn. Boston, MA: Allyn and Bacon.
- Grotevant, H. D., van Dulmen, M. H. M., Dunbar, N., Nelson-Christinedaughter, J., Christensen, M., Fan, X. and Miller, B. C. (2006) 'Antisocial Behavior of Adoptees and Nonadoptees: Prediction from Early History and Adolescent Relationships', *Journal of Research on Adolescence* 16: 105–31.
- Kobak, R. R. (1999) 'The Emotional Dynamics of Disruptions in Attachment Relationships: Implications for Theory, Research, and Clinical Intervention', in J. Cassidy and P. R. Shaver (eds) *Handbook of Attachment*, pp. 21–43. New York: Guilford Press.
- Main, M. and Goldwyn, R. (1985/1991/1994) *Adult Attachment Scoring and Classification Systems*. Unpublished Classification Manual. University of California, Berkeley, CA.
- Main, M. and Hesse, E. (1990) 'Parents' Unresolved Traumatic Experiences are Related to Infant Disorganized Attachment Status: Is Frightened and/or Frightening Parental Behavior the Linking Mechanism?', in M. T. Greenberg, D. Cicchetti and E. M. Cummings (eds) *Attachment in the Preschool Years: Theory, Research, and Intervention*, pp. 161–82. Chicago, IL: University of Chicago Press.
- McCabe, K. M., Lucchini, S. E., Hough, R. L., Yeh, M. and Hazen, A. (2005) 'The Relation Between Violence Exposure and Conduct Problems Among Adolescents: A Prospective Study', *American Journal of Orthopsychiatry* 75: 575–84.
- Moss, E., Rousseau, D., Parent, S., St-Laurent, D. and Saintonge, J. (1998) 'Correlates of Attachment at School Age: Maternal Reported Stress, Mother–Child Interaction, and Behavior Problems', *Child Development* 69: 1390–1405.
- Reynolds, C. R. and Kamphaus, R. W. (1998) *Behavioral Assessment System for Children: Technical Manual*. Circle Pines, MN: American Guidance Service, Inc.
- Rogosch, F. A., Cicchetti, D. and Aber, J. L. (1995) 'The Role of Child Maltreatment in Early Deviations in Cognitive and Affective Processing Abilities and Later Peer Relationship Problems', *Development and Psychopathology* 7: 591–601.
- Ryan, J. and Testa, M. F. (2005) 'Child Maltreatment and Juvenile Delinquency: Investigating the Role of Placement and Placement Instability', *Children and Youth Services Review*. 27(3): 227–49.

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- Shonk, S. M. and Cicchetti, D. (2001) 'Maltreatment, Competency Deficits, and Risk for Academic and Behavioral Maladjustment', *Developmental Psychology* 37(1): 3–17.
- Slade, A. (2004) 'The Move from Categories to Process: Attachment Phenomena and Clinical Evaluation', *Infant Mental Health Journal* 25(4): 269–83.
- Solomon, J. and George, C. (1996) 'Defining the Caregiving System: Toward a Theory of Caregiving', *Infant Mental Health Journal* 17: 183–97.
- Solomon, J., George, C. and DeJong, A. (1995) 'Children Classified as Controlling at Age Six: Evidence of Disorganized Representational Strategies and Aggression at Home and at School', *Development and Psychopathology* 7: 447–63.
- Toth, S., Manly, J. T. and Cicchetti, D. (1992) 'Child Maltreatment and Vulnerability to Depression', *Development and Psychopathology* 4: 97–112.
- Twemlow, S. W., Fonagy, P. and Sacco, F. C. (2005a) 'A Developmental Approach to Mentalizing Communities: I. A Model for Change', *Bulletin of the Menninger Clinic* 69(4): 265–81.
- Twemlow, S. W., Fonagy, P. and Sacco, F. C. (2005b) 'A Developmental Approach to Mentalizing Communities: II. The Peaceful Schools Experiment', *Bulletin of the Menninger Clinic* 69(4): 282–304.
- van IJzendoorn, M. H., Schuengel, C. and Bakermans-Kranenburg, M. J. (1999) 'Disorganized Attachment in Early Childhood: Meta-Analysis of Precursors, Concomitants, and Sequelae', *Development and Psychopathology* 11: 225–49.
- Vondra, J. I., Barnett, D. and Cicchetti, D. (1990) 'Self-Concept, Motivation, and Competence Among Maltreating and Comparison Families', *Child Abuse and Neglect* 14: 525–40.
- Warren, S. L., Huston, L., Egeland, B. and Sroufe, L. A. (1997) 'Child and Adolescent Anxiety Disorders and Early Attachment', *Journal of American Academy of Child and Adolescent Psychiatry* 36(5): 637–44.

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