Young Offenders, Maltreatment, and Trauma: A Pilot Study

Catia Malvaso^{a,b}, Andrew Day^c, Sharon Casey^b and Ray Corrado^d

^a*School of Psychology, Geelong Waterfront Campus, Deakin University, Victoria, Australia;* ^b*School of Psychology, City Campus, The University of Adelaide, South Australia, Australia;* ^c*Australian Aboriginal and Torres Strait Islander Centre, James Cook University, Townsville, Australia;* ^d*School of Criminology, Simon Fraser University, Burnaby, B.C., Canada*

Although a large number of studies offer consistent and persuasive evidence that exposure to childhood maltreatment and subsequent juvenile offending behaviours are related, relatively few studies have investigated the mechanisms by which maltreatment might increase risk in young offender populations. The aim of this pilot study was to collate data on the key areas of need from 28 young male offenders in secure care in an Australian jurisdiction, with a specific focus on the inter-relationship between scores on self-report measures of maltreatment, trauma, and mental health. The findings provide preliminary evidence that these key constructs are linked to other proximal risk factors for juvenile offending, such as poor anger regulation and antisocial thinking patterns. They offer a rationale for considering the sequelae of maltreatment in the development of service delivery frameworks for young offenders.

Key words: maltreatment; mental health; trauma; young offenders.

It has been well-established that young offenders in Australia have experienced high levels of maltreatment (e.g., Indig et al., 2011), and yet juvenile justice service responses rarely identify the mental health consequences of maltreatment as a primary focus for intervention. This is, in part, a consequence of organisational structures that differentiate between those services that respond to the care and protection needs of children, those that address adolescent mental health problems, and those that focus on reducing engagement with the criminal justice system by, for example, aiming to change criminogenic factors that contribute to ongoing risk. The aim of this study is to report pilot data that have the potential to connect these different areas of practice when working with young offenders. This kind of work, we suggest, is likely to be important to

the development of more integrated and co-ordinated service responses to addressing the needs of young offenders in ways that draw upon the collective expertise of professionals from psychiatric, psychological, and legal disciplinary areas.

We start by briefly reviewing the different ways in which the mechanisms that link childhood maltreatment to subsequent offending have been conceptualised. Then we summarise possible service responses to these mechanisms, and what is known more broadly about the needs of young offenders, both internationally and in Australia. Finally, we describe the present study, which provides data on key areas of need among young offenders, with a specific focus on understanding the sequelae of maltreatment and trauma in ways that can assist with the management of risk.

Correspondence: Catia Malvaso, Room 252, Level 2, Hughes Building, School of Psychology, University of Adelaide, SA, Australia. Email: catia.malvaso@adelaide.edu.au

How Might Childhood Maltreatment Explain Offending?

A large number of studies now offer consistent and persuasive evidence that exposure to childhood maltreatment and subsequent offending behaviours are related (see Wilson, Stover, & Berkowitz, 2009). At the same time, it is also clearly the case that not all children or young people who are maltreated will go on to become offenders (e.g., see Widom & Maxfield, 1996; Wilson et al., 2009), and so it becomes important to identify those factors that play an important role in mitigating or exacerbating risk. For example, variations in maltreatment experiences (such as the type, timing, and chronicity of abuse), and out-of-home care placement experiences have all been shown to increase or decrease the likelihood of offending (for a recent review see Malvaso, Delfabbro, & Day, 2016). The majority of studies in this area, however, focus exclusively on documenting risk factors, with minimal attention directed towards testing factors that might comprise a mechanism by which exposure to abuse translates into later offending behaviour.

Longitudinal studies of maltreatment and delinquency that have considered how mental health problems might influence the maltreatment-offending association (Bender, Postlewait, Thompson, & Springer, 2011; Goodkind, Shook, Kim, Pohlig, & Herring, 2013; Jonson-Reid, 2002; Kolivoski, Shook, Goodkind, & Kim, 2014; Yampolskaya & Chuang, 2012) have consistently reported that receiving assistance for mental health issues and increased juvenile justice system involvement are closely associated, with more specific associations reported to exist between depression, bipolar, and post-traumatic stress disorder (PTSD) and delinquency. In order to understand these associations better, tests of mediational effects are needed. There have been some studies of this type. Verrecchia, Fetzer, Lemmon, and Austin (2010), for example, have reported that the relationship between maltreatment and delinquency is partially mediated through behavioural (e.g., poor impulsive control, risk-taking

behaviour) and academic problems (e.g., poor reading and comprehension, truancy, and expulsions). Widom, Schuck, and White (2006) also found that the relationship between maltreatment and violence was mediated through aggressive behaviour and problematic alcohol use. Finally, Topitzes, Mersky, and Reynolds (2011) reported that education-related variables (e.g., reading achievement, high school graduation) fully mediated the relationship between maltreatment and adult arrest convictions for males and partially mediated the relationship for females. To the authors' knowledge, only one study using Australian longitudinal data has attempted these types of analyses. Feiring, Miller-Johnson, and Cleland (2007) explored the role of behavioural and emotional problems in their investigation of the relationship between sexual abuse and delinquency. These researchers found that abuse-specific shame and self-blame attributions led to increased anger, which, in turn, were both directly and indirectly (through association with deviant peers) related to increased delinquency.

A number of different theoretical explanations have been put forward for the pathways that exist between maltreatment and offending in adolescence. Most of these identify as central the experience of trauma, given that children who experience significant symptoms of trauma often display behaviours that are characteristic of disrupted cognitive, educational, and social development. These disruptions may, for example, be reflected in difficulties with attention and learning, emotion regulation, and social relatedness, all of which have been identified as contributors to the development of antisocial behaviour in their own right (see Kerig & Becker, 2010). Ford, Chapman, Connor, and Cruise (2012) also identify trauma reactions as central to the development of mental health disorders, which then translate into adolescent antisocial behaviour. They suggest, for example, that those who have been traumatised have a reduced tolerance (or are hypervigilant) for detecting and surviving threats, and this results in poor self-regulation and the

development of externalising behaviours such as ADHD, conduct disorder, and oppositional defiant disorder (ODD).

It has been further suggested that dysregulated anger mediates the relationship between maltreatment (and exposure to violence in particular), trauma, and offending behaviour. These suggestions are largely based on the co-occurrence of anger problems in people who have been traumatised. Anger regulation theory (Chemtob, Novaco, Hamada, Gross, & Smith, 1997), for example, suggests that anger activates attack or survival behaviours, suppresses feelings of helplessness, and thereby allows the individual to gain a sense of control over the situation during exposure to stress. In the longer term, exposure to trauma may become associated with a loss of self-monitoring and a consequent reduction in the internal inhibition of aggression following anger arousal after the traumatic threat has passed. In other words, traumatised individuals develop a propensity to perceive situations as threatening, and the perception of threat activates a biologically predisposed survival mode, which includes fear and flight reactions as well as anger and fight reactions. They are then less able to regulate anger and, as a consequence, more likely to act aggressively. On the other hand, proponents of fear avoidance theory (see Foa, Riggs, Masie, & Yarczower, 1995) postulate that anger following trauma essentially represents an emotional avoidance strategy, comparable to cognitive avoidance strategies such as distraction. In effect, anger is seen as a psychological defence that provides a welcome focus of attention for those who are motivated to avoid trauma-related fear (activated by post-traumatic intrusions). This suggestion is, of course, not necessarily incompatible with anger regulation theory; Amstadter and Vernon (2008) suggest that while fear is an essentially prospective emotion, arising during the event and concerned with the potential for future harm, other emotions, such as anger and guilt, can be considered to be retrospective emotions that arise

largely from post-trauma appraisals of the event and its consequences. What might be termed 'traumatic anger' can, therefore, be understood as arising from the post-incident appraisals about the violation of safety rules that occurred and/or perceived unfairness (see Ehlers & Clark, 2000). Thus, offending behaviour that involves reactive aggression can be understood as an attempt to cope with or defend oneself or others in the broader context of trauma resulting from maltreatment (see Ford, Fraleigh, & Connor, 2010; Marsee, 2008). There is also some evidence that maltreatment can lead to impairment in the central and peripheral nervous systems, resulting in the inability to inhibit anger and impulsive reactions (Ford et al., 2010).

Disruptions to primary attachment bonds have also been identified as one of the most severe consequences of childhood maltreatment (Cook et al., 2005); especially when children are removed from abusive environments by child protective services and placed in out-of-home care. Ford, Connor, and Hawke (2009) have observed that such disruptions are often implicated as precipitants of conduct, aggression, and hyperactivity problems, although it has also been suggested that parents and carers can play an important role in preventing these by modelling and encouraging effective emotion regulation strategies after a traumatic event has occurred. Nonetheless, failure to do so can result in the child's inability to regulate his or her emotions, control impulses, and respond to challenging or stressful situations in a socially acceptable way (van der Kolk & Fisler, 1994). This, in turn, can lead to the development of aggressive, self-destructive, and delinquent behaviours, as well as other maladaptive coping mechanisms such as substance abuse¹ (see Kerig & Becker, 2010). Further evidence that the impacts of maltreatment are social as well as psychological comes from studies that have found that maltreated young people gravitate towards like-minded peers who reinforce their antisocial attitudes and beliefs (Finkelhor,

Ormrod, & Turner, 2007), further increasing their risk of offending.

Implications for Service Delivery?

Each of these theories has some implications for the management and treatment of young offenders. They suggest, for example, that current conceptualisations of criminogenic need (as assessed, for example, by the Level of Service-Inventory; Andrews & Bonta, 1995) may be too narrow, neglect the developmental origins of risk, and lack the explanatory power to inform an adequate forensic case formulation. They also offer new possibilities for intervening in ways that address both the historical origins of young offending as well as the more proximal risk factors. It has been suggested, for example, that engaging offenders in a behaviour change process is more likely when their problems are contextualised in this way (Casey, Day, Ward, & Vess, 2012). However, these ideas remain speculative in the absence of evidence to show that histories of maltreatment are associated with unresolved trauma and mental health need, dysregulated anger, and antisocial attitudes in young offenders, and that this presentation is common enough to justify a specialist service response.

What Do We Know About the Needs of Young Offenders?

Relatively little is known in Australia about the maltreatment histories of young offenders, although one study by Moore, Gaslin, and Indig (2013) reported that over half of a sample of 291 young offenders in New South Wales had disclosed previous experiences of child abuse or neglect, with 1/5 having a previous or current diagnosis of PTSD. Moreover, those diagnosed with PTSD were over six times more likely to have reported three or more types of severe childhood maltreatment. Of course, a number of studies conducted around the Western world have clearly demonstrated that mental health

problems are exceedingly prevalent among youth in juvenile justice settings (Abram et al., 2004; Cauffman, Feldman, Waterman, & Steiner, 1998; Kerig, Ward, Vanderzee, & Arnzen Moeddel, 2009; Urbaniok, Endrass, Noll, Vetter, & Rossegger, 2007; Widom et al., 2006), with Malvaso and Delfabbro (2015) also reporting strong associations between substance abuse, conduct problems, and delinquent behaviour in a sample of young people with high support needs in the Australian out-of-home care system.

The Current Study

The aim of this study is to collate preliminary data on the key constructs discussed above, to consider how they might collectively provide support for the development of service delivery frameworks that integrate the sequelae of maltreatment with more proximal risk factors for offending. This review of the literature clearly identifies the need for longitudinal research that tests mediational effects in data collected from young offenders. However, such studies require significant resourcing, and it is likely that the relatively small size of the juvenile justice population in Australia would prohibit collection of the quantity of data required to conduct mediational analyses of this type. As such, the primary aim of this study is to report descriptive data on key constructs, as well as to provide some preliminary analysis of how these are inter-related.

Method

Participants

Participants were 28 male young offenders recruited from a juvenile justice detention centre in South Australia. Participants ranged in age from 14 to 18 years ($M = 16.04$, $SD = 1.11$), and just over half (53.6%) identified as Aboriginal or Torres Strait Islander. Almost one third (28.6%) identified as having been previously or currently placed under the Guardianship of the Minister. The most

common offences or reasons for being in secure care were described by participants as breaches of conditions (e.g., bail or home detention conditions, $n = 8$: 28.6%) and theft (most commonly related to vehicles, $N = 8$: 28.6%); 6 young people (21.4%) reported being involved in violent offences, including assault ($n = 2$), robbery ($n = 2$), sex offences ($n = 1$), and homicide ($n = 1$). Of the remaining 4 offences, 2 young people reported being involved in police chases, 1 reported being involved in a break and enter offence, and 1 reported using illegal substances. Generally, this profile appears to be reasonably representative of the South Australian young offender secure care population (see Putnins, 2005).

Materials

All participants completed a battery of self-report assessments, comprised of the following:

Childhood Trauma Questionnaire (CTQ; Pennebaker & Susman, 1988). The CTQ is a brief survey of six early traumatic experiences or events: (1) the death of a very close friend or family member; (2) a major upheaval between the parents, such as divorce or separation; (3) a traumatic sexual experience, such as being raped or molested; (4) violence, such as child abuse, being mugged or assaulted; (5) extreme illness or injury; and (6) any other major upheaval that they thought may have shaped their life or personality significantly. It also aims to assess the individual's understanding of their childhood trauma by surveying how traumatic their experience was and whether they confided in others about it. Participants who indicated that they had experienced such an event are asked to record their age at the time of the event, whether they found the experience traumatic on a 7-point scale (1 = not at all traumatic, 4 = somewhat traumatic, and 7 = extremely traumatic), and whether they confided

in others about their experience on a 7-point scale (where 1 = not at all, and 7 = a great deal).

General Health Questionnaire (GHQ-12; Goldberg & Williams, 1988). A 12-item, self-administered questionnaire designed as a screening tool for mental illness, the GHQ-12 assesses symptoms of psychiatric disorders experienced over the preceding four weeks. Although there are a number of ways to score the GHQ-12, one of the most common is Likert-type scoring (0–1–2–3), whereby possible scores range from 0 to 36. This scoring procedure was selected for the present study, as it has been shown to produce a superior score distribution to assess severity if psychiatric disorders are considered as dimensions rather than categories (see Goldberg et al., 1997). Higher scores on the GHQ-12 indicate greater levels of general psychiatric distress. Age and gender cut-offs for the present study were derived from Baksheev, Robinson, Cosgrave, Baker, and Yung (2011) Australian validation study. For male participants aged less than 15 years, level of need was considered high if the score was ≥ 13 , and for those aged 15 to 18, if the score was ≥ 9 .

Short Anger Measure (SAM; Gerace & Day, 2014). A 12-item self-report measure of angry feelings and aggressive impulses, the SAM shows sound psychometric properties (internal consistency reliability, test-retest reliability; Cronbach's $\alpha = .91$) and concurrent validity with an established measure of anger. Respondents are asked to rate their anger of the last week on a 5-point scale from 'never' to 'very often'. Scores can range from a minimum of 12 to a maximum of 60.

Psychological Inventory of Criminal Thinking (PICTS v4; Walters, 2010). The PICTS is an 80-item self-report measure designed to assess the attitudes and thinking styles hypothesised to support and maintain a criminal lifestyle. It assesses a total of 8 thinking styles

scales (64 items), each comprised of 8 items that rate on a 4-point Likert-type scale from 1 (Disagree) to 4 (Strongly Agree) with raw scores subsequently converted to *t*-scores (with a mean of 50 and standard deviation of 10). Lower scores are indicative of thinking styles that are less supportive of the maintenance of a criminal lifestyle.

Youth Justice Assessment Tool (YJAT; Day & Casey, 2012). The YJAT was used to assess participant perceptions of their current areas of need for service. This full measure assesses need in three ways: (1) client self-report; (2) practitioner discussions with the client about their current needs; and (3) practitioner ratings of need based on experience and knowledge of the client. For the purposes of the present study, only the client self-report component was used. The self-report measures need across five areas: Offending Behaviour (4 items associated with antisocial behaviour), Family Cohesion (5 items measuring relationships with family/carers), Social Competence (5 items assessing degree to which personal goals in social interactions can be achieved), Future Orientation (4 items reflecting beliefs about the capacity to impact on plans for the future), and Education, Training or Work (4 items measuring commitment to and engagement with education/training/work). Participants are asked to rate their level of need in these areas on a scale from 1 to 5, with lower scores indicative of higher need.

Procedure

After ethical approval was obtained from a university ethics committee, young people in detention were invited to complete an assessment. Participation was entirely voluntary, and written consent was obtained prior to undertaking the assessment. Participants were given the option to complete the assessments themselves or have the researcher read out

the questions and fill in the responses. The assessments were approximately 30–40 minutes in duration.

Results

Data Analysis

Three main phases of analysis were conducted. First, a descriptive analysis of scores on each of the self-report measures was performed. Next, correlations were calculated to determine the extent to which scores on the different measures were associated. Finally, differences between young people who reported experiencing traumatic life events and those who did not, and between those who scored in the highest range for mental health problems and those who did not, were explored. Chi-square tests of independence were used for binary or categorical variables, and *t* tests were used for continuous variables.

Childhood Trauma

As shown in Table 1, of the 28 young people assessed, 24 (85.7%) indicated that they had experienced at least one of the events listed on the Childhood Trauma Questionnaire. Death of a close friend or family member was the most commonly reported experience, followed by parental divorce and violence.

Although participants were informed that they did not have to provide details about their experiences, some young people volunteered information or questioned whether certain experiences would be considered as ‘any other major upheaval’. This gave an indication of the types of events young people considered when endorsing this item and included experiences of homelessness, witnessing domestic violence, and/or violence in their communities.

To assess the individual’s understanding of their traumatic experiences, those who endorsed experiencing these events were then asked to indicate on a 7-point scale how traumatic they found this experience to be. Participants who provided ratings of 6 or 7 on the

Table 1. Summary of childhood trauma questionnaire items.

	Event experienced		Age		Rated as traumatic		Confided in another person	
	<i>n</i>	%	<i>M</i>	<i>SD</i>	<i>n</i>	%	<i>n</i>	%
<i>Any</i>	24	85.7	10.72	3.50	17	70.3	3	17.6
Death	19	67.9	12.21	3.07	11	57.9	0	0.0
Parental divorce	14	50.0	7.80	5.03	7	50.0	0	0.0
Violence	10	35.7	9.10	5.43	5	50.0	1	20.0
Illness or injury	8	28.6	10.88	4.55	2	25.0	1	50.0
Other	8	28.6	11.38	5.40	3	37.5	2	66.7
Sexual abuse	5	17.9	10.50	5.80	3	60.0	0	0.0

scale were then categorised as ‘traumatic’ ($n = 17$: 70.3%). Similarly, those who indicated that they had confided in others ‘a great deal’ (6 or 7 on a 7 point scale) were categorised as ‘confided’ ($n = 3$: 17.6%). The number and percentage of individuals categorised as traumatic and confided based on individual events are reported in Table 1.

Mental Health

Using the Australian cut-offs recommended by Baksheev et al. (2011), GHQ-12 scores greater than 9 (for young people under the age of 15) and 13 (for young people over the age of 15) indicate the need to consider a referral to a mental health specialist. In this study only one participant was less than 15 years old, and this individual scored below the recommended threshold for referral. In the older age bracket, however, 22 out of 27 participants (81.5%) scored above the cutoff.

Anger

Total scores on the Short Anger Measure (SAM; Gerace & Day, 2014) ranged from 12 to 56, with a mean score of 28.43 ($SD = 13.06$). In the absence of a recommended cut-off for high or low SAM scores, scores were considered to be high if they were at the extreme upper end of the distribution of scores (above the 75th percentile). Of the 28 participants, 7 scored above the 75th percentile.

Criminal Thinking

No invalid cases were identified on the PICTS. The presence of a belief system supportive of a criminal lifestyle is reflected in a t -score of 50 or above on the General Criminal Thinking (GCT) scale. The average t -score overall for this measure was 54 (see Table 2), with 20 (71.4%) participants scoring 50 or over, and 8 (26.6%) scoring below the cutoff. The lowest GCT t -score in this sample was 39, and the highest was 75. When categorising participant scores above the 50 score cutoff according to the three GCT elevation levels (moderate, moderately high, and high), 13 participants had moderate scores (65.0%), 5 scored in the moderately high level (25.0%), and 2 had scores on the high level (10.0%).

Proactive (P) criminal thinking scores ≥ 55 and which are 10 points higher than the Reactive (R) criminal thinking score are indicative of Proactive criminal thinking, a style described as deliberate, planned, and inner-directed. On the other hand, when the R score is ≥ 55 and 10 points above the P scale, this is indicative of Reactive criminal thinking, which is described as impulsive, disorganised, and outer-directed. As can be seen in Table 2, the overall mode of criminal thinking in this sample could not be described as either proactive or reactive. However, because the average P score was below 55, it does suggest that, overall, participants in this sample did not tend to express thoughts of

Table 2. Summary of PICTS scales raw scores, *t*-scores, and the number of participants scoring above or below the cutoffs for PICTS scales.

PICTS scale	Raw score	<i>t</i>	Above cut off <i>N</i> (%)	Below cut off <i>N</i> (%)
<i>Composite scales</i>				
Proactive criminal thinking	74.6	52	10 (35.7)	18 (64.3)
Reactive criminal thinking	88.0	56	14 (50.0)	14 (50.0)
<i>General scale</i>				
General criminal thinking	121.5	54	20 (71.4)	8 (28.6)
<i>Special scale</i>				
Fear-of-change	14.0	47	2 (7.1)	26 (92.9)

proactive or planned criminal thinking. Conversely, the average R score indicates a moderate degree of reactive criminal thinking among participants in this sample. Reactive criminal thinking is described as impulsive, hot-blooded, and emotional, and the criminal activities are more likely to be a function of the individual's reaction to situations rather than being planned. Individual trends in Proactive criminal thinking are said to present if P scores are above the cutoff 55 and 6–9 points higher than R scores, and the opposite is true for individual trends in Reactive criminal thinking. Based on this, a Proactive criminal thinking trend could be inferred for two participants (7.1% of the sample), whereas a Reactive criminal thinking trend could be inferred for 12 participants (42.9% of the sample).

Self-reported Needs

Self-reported needs in the five areas of the Youth Justice Assessment Tool were as

follows: Offending Behaviour ($M = 11.48$, $SD = 3.31$), Family Cohesion ($M = 17.18$, $SD = 5.42$), Social Competence ($M = 19.29$, $SD = 2.16$), Future Orientation ($M = 13.46$; $SD = 2.50$), and Education, Training or Work ($M = 20.11$, $SD = 3.26$). Raw scores were then converted into positive standard scores, and based on these scores, it was determined that young people rated their needs in the following order (from lowest to highest): Family Cohesion ($M = 3.17$), Offending Behaviour ($M = 3.37$), Future Orientation ($M = 5.38$), Education, Training or Work ($M = 6.17$), and Social Cohesion ($M = 8.94$).

Correlations between Trauma, Mental Health, and Other Areas of Need

To understand further how scores on these measures relate to each other, a series of correlations for the key measures are reported in Table 3. This reveals a small positive association between the number of trauma items endorsed and scores on the GHQ-12, which

Table 3. Correlations between key measures.

	Number of reported trauma experiences	GHQ-12 scores (mental health)	SAM scores (anger)	Criminal thinking (Reactive)
Number of trauma experiences	1.00			
GHQ-12 scores (mental health)	.34**	1.00		
SAM scores (anger)	.05	.03	1.00	
Criminal thinking (Reactive)	-.01	.15	.46*	1.00

Note: GHQ-12 = General Health Questionnaire. SAM = Short Anger Measure.

* $p < .05$; ** $p < .1$.

approached significance, $r = .34$, $p = .08$. What this suggests is that as the number of traumatic events experienced by participants increases, so do self-reported mental health problems. A significant positive correlation was also found between Reactive Criminal Thinking scores and scores on the Short Anger Measure, indicating that as scores increased on one scale, scores also increased on the other.

Comparative Analyses

To explore further the differences between those young people who reported experiencing trauma and those who did not on other areas of need, a series of chi-square tests of independence and t tests were conducted. Due to the small sample size, Fisher's exact test (the exact probability of the chi-square statistic) was used to determine whether between-group differences were significant.

Those who reported experiencing a major upheaval were more likely to score above the 75th percentile on the Short Anger Measure (66.7% versus 33.3%). This difference was significant, $\chi^2 = 5.08$, $p < .05$. Participants who reported they had experienced the death of a family member scored higher on the fear of change thinking style scale ($M = 15.26$) than did those who did not report having this experience ($M = 11.44$), $t(22.9) = -2.84$, $p < .01$ (Cohen's $d = .47$), although the mean score for this scale did not exceed the recommended cut-off. Similarly, those who endorsed at least one traumatic experience overall scored higher on the fear of change thinking scale ($M = 14.67$) than those who did not report any traumatic experience ($M = 10.25$), $t(10.5) = -3.67$, $p < .01$. Again, this mean score did not exceed the recommended cut-off for elevated scores. Participants who reported experiencing violence had significantly lower scores on the family cohesion scale ($M = 13.70$) than those who did not report experiencing violence ($M = 19.24$), $t(11.0) = 2.58$, $p < .05$. As lower scores on this measure indicate greater need, victims of

violence were found to have greater difficulties in the area of family cohesion. Finally, those who perceived that at least one of their life experiences was extremely traumatic had significantly lower scores on the Short Anger Measure ($M = 23.88$) compared to those who perceived their experiences to be somewhat traumatic or not traumatic at all ($M = 35.45$), $t(26) = 2.50$, $p < .05$. No significant differences were found between the scores of Aboriginal and/or Torres Strait Islander and non-Aboriginal and/or Torres Strait Islander participants on any of the measures.

Discussion

The aim of this study was to collate preliminary data on some of the key constructs identified as relevant to understanding the association between childhood maltreatment and offending in young offenders. Although this is clearly only a small-scale pilot study, the responses of participants show that the majority, 24 out of 28, report experiencing at least one of the events listed on the Childhood Trauma Questionnaire, with death of a close friend or family member most commonly reported. Of these, 17 participants reported that they found the experience to be traumatic, although only 3 reported that they had confided in others about the experience.

The majority, 22 out of 27 participants, scored above the recognised cut-off to warrant a referral to a mental health specialist; this represents a much higher proportion than that reported in an Australian normative sample of adolescents (53.9%; Baksheev et al., 2011) and is suggestive of a high level of mental health need in this population. The absence of community normative data for the measure of anger used in this study makes it difficult to interpret the level of need in this area, although the mean score reported here is comparatively higher than that found in the measure development paper (also based on a South Australian sample; see Gerace & Day, 2014) for adult prisoners. This indicates that young people have more problems with anger

regulation and expression. Finally, there is preliminary evidence that reactive criminal thinking is relatively common in this young offender sample, with 12 participants scoring above the threshold. This is described as impulsive, hot-blooded, and emotional, with criminal activity more likely to be a function of the individual's reaction to situations rather than being planned.

Although this profile will be familiar to many of those who work with young offenders, the contribution of this study lies in the juxtaposition of scores on these different measures. Collectively, the data presented here begin to tell a story that is consistent with the findings of the longitudinal studies that link childhood maltreatment to the experience of trauma and other mental health problems, which may then be externalised and associated with poor anger regulation and the development of antisocial thinking patterns. Although these longitudinal studies were conducted with data from community cohorts, rather than with data collected from young offenders, a similar pattern seems to apply. One exception to this was the finding that those young people who perceived some of their life experiences as extremely traumatic scored lower on the anger measure than did those who perceived their experiences as not traumatic. It could be that those who have been able to recognize an experience as being traumatic have also in some way been able to process or make sense of their experience in a way that reduces their anger, or their expression of anger. Nonetheless, these preliminary findings are consistent with theoretical understandings of young offending that identify *personal factors* (e.g., risk factors associated with a young person such as anger, mental health, criminal thinking styles), the *immediate context* (e.g., the family system; maltreatment), the *exosystem* (e.g., placement in out of home care), the *microsystem* (community) and the *macrosystem* (the broader socio-political context) as important contributors to offending and, in doing so, offers some encouragement for the development of multi-

level interventions that address what were previously considered to be non-criminogenic needs.

These findings are, of course, preliminary, given the small sample size and the consequent low statistical power in detecting within-group differences. The data are also all self-reported, and this may have influenced the findings, with young offenders possibly unlikely to fully disclose maltreatment experiences (although over-reporting is also possible). Nonetheless, this pilot provides some impetus to explore these associations in greater detail. In particular, it is clear that maltreatment experiences are not homogenous, and these need to be explored in greater detail, particularly in relation to child abuse and neglect. Symptoms of post-traumatic stress disorder were also not assessed, suggesting that there is scope for further work examining the association between specific symptoms of trauma, externalising problems, and offending. Of particular interest here, given the high proportion of young offenders who identify with Aboriginal and/or Torres Strait Islander cultural backgrounds, is previous research with adult prisoners, which identified high levels of trauma symptoms as associated with long-term negative impacts on identity and the capacity to self-regulate emotion (Day et al., 2008). The main purpose of these types of studies, however, is to inform the planning of appropriate service responses for young offenders. It is noteworthy that in this study, the highest areas of self-reported need were in the area of family cohesion, followed closely by offending behaviour. This provides further support, albeit indirect, for the suggestion that the most effective service responses for young offenders may be those that identify and address childhood maltreatment experiences and work with young people and their families and carers to prevent the emergence of externalising disorders and antisocial thinking patterns. The possibilities here for integrated responses that harness the expertise of lawyers, psychiatrists, and psychologists are extensive.

Note

1. Substance abuse itself has been linked to dissociative defences, a symptom of complex trauma and PTSD, whereby substances are used as a compensatory mechanism to manage pain or psychological conflict (van der Kolk, 1991).

Disclosure statement

No potential conflict of interest was reported by the authors.

References

- Abram, K. M., Teplin, L. A., Charles, D. R., Longworth, S. L., McClelland, G. M., & Dulcan, M. K. (2004). Posttraumatic stress disorder and trauma in youth in juvenile detention. *Archives of General Psychiatry*, 61, 403–410. doi:10.1001/archpsyc.61.4.403
- Amstadter, A. B., & Vernon, L. L. (2008). Emotional reactions during and after trauma: A comparison of trauma types. *Journal of Aggression, Maltreatment & Trauma*, 16, 391–408. doi:10.1080/10926770801926492
- Andrews, D. A., & Bonta, J. (1995). *The level of service inventory- revised*. Toronto, ON: Multihealth Systems.
- Baksheev, G. N., Robinson, J., Cosgrave, E. M., Baker, K., & Yung, A. R. (2011). Validity of the 12-item General Health Questionnaire (GHQ-12) in detecting depressive and anxiety disorders among high school students. *Psychiatry Research*, 187, 291–296. doi:10.1016/j.psychres.2010.10.010
- Bender, K., Postlewait, A. W., Thompson, S. J., & Springer, D. W. (2011). Internalizing symptoms linking youths' maltreatment and delinquent behavior. *Child Welfare*, 90, 69–89.
- Casey, S., Day, A., Ward, T., & Vess, J. (2012). *Foundations of offender rehabilitation*. Oxford, UK: Routledge Publishing.
- Cauffman, E., Feldman, S. S., Waterman, J., & Steiner, H. (1998). Posttraumatic stress disorder among female juvenile offenders. *Journal of the American Academy of Child and Adolescent Psychiatry*, 37, 1209–1216.
- Chemtob, C. M., Novaco, R. W., Hamada, R. S., Gross, D. M., & Smith, G. (1997). Anger regulation deficits in combat-related posttraumatic stress disorder. *Journal of Traumatic Stress*, 10, 17–36.
- Cook, A., Spinazzola, J., Ford, J., Lanktree, C., Blaustein, M., & Cloitre, M. (2005). Complex trauma in children and adolescents. *Psychiatric Annals*, 35, 390–398.
- Day, A., & Casey, S. (2012). Assessing client outcomes in youth justice services: Current status and future directions. *Journal of Juvenile Justice*, 2, 112–124.
- Day, A., Davey, L., Wanganeen, R., Casey, S., Howells, K., & Nakata, M. (2008). Symptoms of trauma, perceptions of discrimination and anger: A comparison between Australian Indigenous and non-Indigenous prisoners. *Journal of Interpersonal Violence*, 23, 245–258.
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38, 319–345.
- Feiring, C., Miller-Johnson, S., & Cleland, C. M. (2007). Potential pathways from stigmatization and internalizing symptoms to delinquency in sexually abused youth. *Child Maltreatment*, 12, 220–232. doi:10.1177/1077559507301840
- Finkelhor, D., Ormrod, R. K., & Turner, H. A. (2007). Poly-victimization: A neglected component in child victimization. *Child Abuse & Neglect*, 31, 7–26.
- Foa, E. B., Riggs, D. S., Masie, E. D., & Yarczower, M. (1995). The impact of fear activation and anger on the efficacy of exposure treatment for posttraumatic stress disorder. *Behavior Therapy*, 26, 487–499.
- Ford, J. D., Chapman, J., Connor, D. F., & Cruise, K. R. (2012). Complex trauma and aggression in secure juvenile justice settings. *Criminal Justice and Behavior*, 39, 694–724.
- Ford, J. D., Connor, D. F., & Hawke, J. (2009). Complex trauma among psychiatrically impaired children: A cross-sectional, chart-review study. *Journal of Clinical Psychiatry*, 70, 1155–1163.
- Ford, J. D., Fraleigh, L., & Connor, D. (2010). Child abuse and aggression among psychiatrically impaired children. *Journal of Clinical Child and Adolescent Psychology*, 39, 25–34.
- Gerace, A., & Day, A. (2014). The short anger measure (SAM): Development of a measure to assess anger in forensic populations. *The Journal of Forensic Nursing*, 10, 44–49.
- Goldberg, D. P., Gater, R., Sartorius, N., Ustun, T., Piccinelli, M., Gureje, O., & Rutter, C. (1997). The validity of two versions of the GHQ in the WHO study of mental illness in general health care. *Psychological medicine*, 27(01), 191–197.
- Goodkind, S., Shook, J. J., Kim, K. H., Pohlig, R. T., & Herring, D. J. (2013). From child welfare to juvenile justice race, gender, and system experiences. *Youth violence and juvenile justice*, 11(3), 249–272.
- Indig, D., Vecchiato, C., Haysom, L., Beilby, R., Carter, J., & Champion, U. (2011). *2009 NSW*

- young people in custody health survey: Full report. Sydney: Justice Health and Juvenile Justice.
- Jonson-Reid, M. (2002). Exploring the relationship between child welfare intervention and juvenile corrections involvement. *American Journal of Orthopsychiatry*, 72, 559–576. doi:10.1037//0002-9432.72.4.559
- Kerig, P. K., Becker, S. P. (2010). From internalizing to externalizing: Theoretical models of the processes linking PTSD to juvenile delinquency. In S. J. Egan (Ed.), *Posttraumatic stress disorder (PTSD): Causes, symptoms and treatment* (pp. 33–78). Hauppauge, NY: Nova Science Publishers.
- Kerig, P. K., & Becker, S. P. (2015). Early abuse and neglect as risk factors for the development of criminal and antisocial behavior. In J. Morisot & L. Kazemian (Eds.), *The development of delinquent and antisocial behavior* (pp. 181–199). Switzerland: Springer International Publishing.
- Kerig, P. K., Ward, R. M., Vanderzee, K. L., & Arnzen Moeddel, M. (2009). Posttraumatic stress as a mediator of the relationship between trauma and mental health problems among juvenile delinquents. *Journal of Youth and Adolescence*, 38, 1214–1225.
- Kolivoski, K. M., Shook, J. J., Goodkind, S., & Kim, K. H. (2014). Developmental trajectories and predictors of juvenile detention, placement, and jail among youth with out-of-home child welfare placement. *Journal of the Society for Social Work and Research*, 5, 137–160. doi:10.1086/676520
- Malvaso, C. G., & Delfabbro, P. (2015). Offending Behaviour Among Young People with Complex Needs in the Australian Out-of-Home Care System. *Journal of Child and Family Studies*, 24(12), 3561–3569.
- Malvaso, C.G., Delfabbro, P., & Day, A. (2016). Risk factors that influence the maltreatment-offending association: A systematic review of prospective and longitudinal studies. *Aggression and Violent Behavior*, 1–15. doi:10.1016/j.avb.2016.06.006
- Marsee, M. A. (2008). Reactive aggression and posttraumatic stress in adolescents affected by Hurricane Katrina. *Journal of Clinical Child and Adolescent Psychology*, 37, 519–529.
- Moore, E., Gaskin, C., & Indig, D. (2013). Childhood maltreatment and post-traumatic stress disorder among incarcerated young offenders. *Child Abuse & Neglect*, 37, 861–870.
- Pennebaker, J. W., & Susman, J. R. (1988). Disclosure of traumas and psychosomatic processes. *Social Science & Medicine*, 26, 327–332.
- Putniņš, A. L. (2005). Assessing recidivism risk among young offenders. *Australian & New Zealand Journal of Criminology*, 38, 324–333. doi:10.1375/acri.38.3.324
- Topitzes, J., Mersky, J. P., & Reynolds, A. J. (2011). Child maltreatment and offending behavior: Gender-specific effects and pathways. *Criminal Justice and Behavior*, 38, 492–510. doi:10.1177/0093854811398578
- Urbanik, F., Endrass, J., Noll, T., Vetter, S., & Rossegger, A. (2007). Posttraumatic stress disorder in a Swiss offender population. *Swiss Medical Weekly*, 137, 151–156.
- van der Kolk, B. A., & Fisler, R. E. (1994). Childhood abuse and neglect and loss of self-regulation. *Bulletin of the Menninger Clinic*, 58, 145–168.
- Verrecchia, P. J., Fetzer, M. D., Lemmon, J. H., & Austin, T. L. (2010). An examination of direct and indirect effects of maltreatment dimensions and other ecological risks on persistent youth offending. *Criminal Justice Review*, 35, 220–243. doi:10.1177/0734016809360327
- Walters, G. D. (2010). *The psychological inventory of criminal thinking styles (PICTS) professional manual*. Allentown, PA: Center for Lifestyle Studies.
- Widom, C. S., & Maxfield, M. G. (1996). A prospective examination of risk for violence among abused and neglected children. *Annals New York Academy of Sciences*, 794, 224–237.
- Widom, C. S., Schuck, A. M., & White, H. R. (2006). An examination of pathways from childhood victimization to violence: The role of early aggression and problematic alcohol use. *Violence and Victims*, 21, 675–690.
- Wilson, H. W., Stover, C. S., & Berkowitz, S. J. (2009). The relationship between childhood violence exposure and juvenile antisocial behavior: A meta-analytic review. *Journal of Child Psychology and Psychiatry*, 50, 769–779. doi:10.1111/j.1469-7610.2008.01974.x
- Yampolskaya, S., & Chuang, E. (2012). Effects of mental health disorders on the risk of juvenile justice system involvement and recidivism among children placed in out-of-home care. *American Journal of Orthopsychiatry*, 82, 585–593. doi:10.1111/j.1939-0025.2012.01184.x