## Article Title

Screening for Post-Traumatic Stress Symptoms in Looked After Children

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Brief biography:

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Brief biography:

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## Abstract

**Purpose:** Many children who are looked after by the state have experienced adverse and traumatic life circumstances prior to being removed from their biological parents. Previous research has highlighted that many looked after children experience barriers to accessing psychological therapies. The present study investigated the feasibility of assessing post-traumatic stress disorder (PTSD)-like symptoms using a screening tool, and through this the prevalence of PTSD-like symptoms in looked after children presenting with emotional and/or behavioural problems.

**Methodology:** The Child Revised Impact of Events Scale (CRIES-8) was identified as a suitable screening tool for PTSD-like symptoms. This measure was piloted for three months, and the prevalence of PTSD-like symptoms amongst respondents (n=27) was recorded.

**Findings:** Prevalence of PTSD-like symptoms was found to be high, 75% amongst respondents. The psychometric properties of the CRIES-8 were similar to those found in a previous study assessing PTSD following a single-incident trauma. Health care professionals reported finding the CRIES-8 to be a clinically useful measure.

**Value:** Prevalence of PTSD-like symptoms may be high amongst looked after children, and the CRIES-8 appears to have good psychometric properties when used with this population. It is likely that this highly treatable condition is under-detected: recommendations are made for clinical practice and further research.

**Article Type**

Research Paper

**Introduction**

*Post-Traumatic Stress Disorder (PTSD)*

DSM-V defines trauma as an event or events involving a perceived threat to life or physical integrity, and intense fear, helplessness or horror (American Psychiatric Association, 2013). The key symptoms of PTSD for this diagnosis are re-experiencing symptoms (e.g. flashbacks, nightmares); avoidance of reminders of the trauma; hyper-arousal; and emotional numbing. It has long been recognised that trauma can have a significant and complex impact on children and young people's (referred to as children from this stage forward) social, emotional, and behavioural development (Eth and Pynoos, 1985).

*PTSD in Looked After Children*

By definition, many children requiring care from the state (termed Looked After Children in England) have experienced circumstances which most people would agree are likely to be experienced as traumatic. Indeed, it is likely that some children will have had experiences where they believed they or those they love were going to die or be seriously injured. It is less clear whether "threat to life" should include threat to one's hoped for life and more general emotional and physical safety, and whether "physical integrity" should include mental and emotional integrity. In an apparent paradox, a child could also experience being removed from their parents as a safety measure traumatic. However, this form of emotional distress would not fit with the current DSM notion of trauma.

Despite the prevalence of trauma and long-term experience of adversity in looked after children there are surprisingly few studies of PTSD in this context. Many studies appear to have used broad mental health assessments, such as the Strengths and Difficulties Questionnaire (e.g. Egelund & Lausten, 2009), which don't capture specific dimensions of PTSD symptomatology. Prevalence rates of PTSD in looked after children range from 22% (Chambers et al., 2010) to 71% (Sadowski et al., 2003). Interestingly, in the Sadowski study, PTSD was the most highly prevalent of all reported mental health problems, with 67% of children reporting depression, 62% separation anxiety, 38% general anxiety, 33% social phobia, and 29% reactive attachment disorder. This corresponds with a large study by Ford et al. (2007), which

found that PTSD was 19 times more prevalent in looked after children than in the general population.

**Traumatic experiences and emotional distress in Looked After Children**

*Prevalence of traumatic experiences*

Chambers et al. (2010) suggest that looked after children are more likely than those in the general population to have experienced detrimental life conditions such as family poverty, parental mental illness, domestic violence, and parental substance abuse. Indeed, statutory services do not enter into child protection proceedings and removal of children lightly: most looked after children will, by their very nature, have experienced or been at serious risk of significant harm (i.e. physical, emotional, or sexual abuse, or neglect). This study of 52 looked after children found that 69% had experienced neglect, 48% physical abuse, 37% emotional abuse, and 23% sexual abuse. The authors also discuss the traumatic nature of removal from one's birth family.

*Prevalence of mental health problems in looked after children*

Given the circumstances surrounding being taken into care, it is not surprising that looked after children experience substantially higher levels of psychological distress than children in the general population (e.g. Burns et al., 2004; Ford et al., 2007; Harman et el., 2000; Minnis and Del Priore, 2001; Tarren-Sweeney, 2008). Studies have found that 48% (Burns et al., 2004) to 69% (Sawyer et al., 2007) of looked after children present with clinically significant emotional and behavioural problems. As well as affecting everyday functioning and quality of life, left untreated, these mental health problems are likely to worsen outcomes for looked after children, for example, leading to placement breakdown (i.e. the foster placement not lasting, often leading to the child being placed with multiple sets of carers) and a spectrum of difficulties in the education system: from concentration difficulties to truancy to permanent exclusion (Kerker & Dore, 2006).

**Treatment of PTSD in looked after children**

Unfortunately, it seems that many looked after children do not receive National Institute for Clinical Excellence (NICE)-recommended psychological therapies for the

emotional distress resulting from their traumatic experiences. Some papers discuss the barriers which exist to looked after children accessing mental health services:

> *"narrow referral criteria, non-detection of mental health problems, referrer's reluctance to pathologise children's behaviour, high levels of morbidity among children, difficulties in gaining children's engagement with therapies, and limited resources (Hatfield et al., 1996; Minnis and Del Priore, 2001)"*
>
> *(*Cited in Callaghan et al., 2003, p.51)

The desire to hold back from diagnosing mental health problems in children who have experienced serious and usually adverse circumstances is understandable. Those responsible for or involved in their care are mindful of the idea that the child's reactions are proportionate to their circumstances; however, PTSD can in some senses be regarded as a normal reaction to abnormal situations, making it different from other psychiatric diagnoses (such as conduct or emotional disorders).

**Screening tools to improve mental health assessment and subsequent treatment**

*Screening tools aid assessment*

Comprehensive mental health assessment is recommended for all looked after children, particularly incorporating investigation of attachment and trauma (Cross, 2012). Leslie et al. (2003) and Tarren-Sweeney (2008) suggest that clinical judgement in such assessments should be augmented with the use of screening tools – they recommend that consistent use of such questionnaires will lead to more accurate and effective assessments. In addition, Chambers et al. (2010) suggest obtaining information from the child themself, as caregiver descriptions might be inaccurate due to their relationship with the child, and how long they have known the child. Indeed, perhaps it should not only be children presenting behaviourally as being distressed who should be targeted: Golding (2010) describes types of children who tend to hide emotional distress: the "closed book children" (Schofield et al., 2000), and "too good to be true children" – perhaps screening tools will help to give these children a voice and open access to treatment. Screening tools would certainly help to address some of the barriers listed above.

*The potential utility of a PTSD diagnosis*

Screening tools assisting clinicians to accurately diagnose psychopathology can be useful in securing access to treatment services. For example, Tarren-Sweeney (2009) found that looked after children were twice as likely to have received support from mental health services if they had a diagnosed mental health problem (67% vs. 32%). While there is controversy about the ethics of labelling children, the label of PTSD (compared to some other, more controversial mental health diagnoses) seems to provide a good and relatively stigma-free functional description or formulation of a child's problems. Studies have found significant overlap between manifestations of PTSD and conduct disorder (e.g. Steiner et al., 1997), and Kerker and Dore (2006) note that children with conduct problems have difficulty accessing services: perhaps if their behaviour was instead conceptualised in terms of PTSD, this would open doors. Indeed, Poyser (2004) asks whether looked after children who are labelled with "behavioural problems" by carers and professionals are in fact suffering with PTSD. Dann (2011) suggests that conceptualising looked after children's conduct problems within the context of previous trauma would help teachers and other professionals to understand their behaviour better.

**Improving assessment of trauma in a city-wide looked after children service**

The present study involved a city-wide, specialist multidisciplinary looked after children service, funded jointly by the NHS and social care to work in a consultative capacity to support the mental health of looked after children. The team of psychologists, psychotherapists and mental health nurses works with the carers of children who have been identified by their social worker or health professionals as experiencing mental health difficulties. There are approximately 750 looked after children in the city of concern, and the service in question receives around 160 referrals per year. When the service was commissioned, it was expected that around 90% of the children under the care of this service would be referred to Child and Adolescent Mental Health Services (CAMHS) for psychological therapies. However, data from the service suggested that only around 30% of referrals to CAMHS from this service were being accepted.

Indeed, clinicians reported that many of these children seemed to suffer with symptoms of trauma, but were not treated by CAMHS as they were deemed either too complex, or not to meet diagnostic criteria for a named mental health condition:

similar reasons to the barriers outlined earlier by Callaghan et al. (2003). Therefore, it seems likely that a significant number of vulnerable children were experiencing barriers to accessing relevant services which can provide therapies for psychological distress resulting from trauma.

It is established that a high proportion of the looked after children within this service will probably have experienced traumatic events, and that screening for mental health problems is recommended to facilitate access to appropriate treatment, and to help carers understand children better. Therefore, in collaboration with the specialist looked after children service, the research team identified and implemented a brief PTSD screening tool. Using this screening tool, the research team assessed the proportion of children within the specialist looked after children's service screening positively for symptoms of PTSD.

It was also initially planned that the number of referrals accepted by CAMHS pre- and post-implementation of the screening tool would be audited. However, the sample size was too small to allow for any statistically meaningful analysis of this.

**Method**

*Design*

A screening tool for PTSD was implemented for a three-month period to assess the proportion of children screening positively for PTSD-like symptoms.

*Participants*

The screening tool was sent to the carers of all service users aged eight and over within the looked after children service's current caseload, which consists of looked after children who have been identified by their social worker or another health professional as experiencing mental health difficulties.

*Measure*

A brief screening tool for PTSD symptoms was identified by the researcher, in collaboration with the service. The tool was identified through a brief literature review and consultation with an expert in the field of childhood PTSD (personal communication, Meiser-Stedman, 2012). The Child Revised Impact of Events Scale-8 (CRIES-8, Yule, 1997) was identified as it has good reliability and validity (Perrin et al. 2005), and has been chosen to be used across CAMHS in England as part of

Improving Access to Psychological Therapies. In addition, it is brief, consisting of only eight items, and can be self-completed by children aged eight and above. The eight questions relate to two of the key symptoms of PTSD: intrusive memories such as nightmares, flashbacks, and intrusive thoughts; and avoidance of things like reminders of the trauma(s) and avoidance of talking or thinking about the trauma(s). The child completing the CRIES-8 is invited to rate on a four point scale, ranging from 'not at all' to 'often', how frequently each item was applicable for them during the past week. A score of 17 and above is suggestive of PTSD, although the authors highlight that this measure alone is not diagnostic.

In consultation with the service's therapy team, additional instructions were given as a preface to the standard CRIES-8 instructions, as follows, in order to make it more relevant to the looked after children population and to facilitate self-completion by service users: "*Thinking back over your life, there might have been something really upsetting that happened before you came into care, after you came into care, or you might have found coming into care really upsetting and stressful. Below is a list of comments made by people after upsetting or stressful life events. Please put an X for each item showing how frequently these comments were true for you during the past seven days. If they did not occur during that time please put an X in the 'not at all' box.*" The CRIES-8 is freely available on the Children and War Foundation website, and the authors give permission for it to be adapted, providing that a copy is made available to others on their website (personal communication, Yule, 2014).

*Procedure*

The CRIES-8 was then sent by post to the carers of all children aged eight and over within the service, along with a cover letter offering guidance in inviting their child to complete it. If children attempted to complete the CRIES-8 but said that they had not experienced any traumatic events, carers were asked to note this on the form and return it by post. Most completed questionnaires were returned by post, however a small number were completed with clinicians during initial assessment appointments. Returned questionnaires were then scored (including information about the threshold suggestive of PTSD) and placed in the child's file, in order that care co-ordinators could incorporate the information into their formulation of the child's difficulties, and take appropriate action.

*Ethics*

The study assessed and approved by the University of Bath Psychology Department Research Ethics Committee, along with the local city council's Research Governance Department.

**Results**

*Completion of the CRIES-8*

Of 65 children on the service's caseload, two were under the age of eight and therefore were unable to complete the CRIES-8. 28 children (43% of the eligible caseload) returned completed questionnaires, one of whom did not complete it, noting that he had not experienced any trauma. The mean age of eligible children was 13.6 years (SD=2.8). Those who returned the CRIES-8 were, on average, almost a year older (mean=14.3 years, SD=2.6) than those who did not (mean=13.1 years, SD=3).

*CRIES-8 Scores*

**[Insert Figure 1 here]**

Figure 1 shows that the CRIES-8 scores of those who completed the questionnaire are negatively skewed. 75% (n=21) of respondents scored greater than or equal to 17 (the threshold suggestive of PTSD). There was one missing datum in the dataset (i.e. one participant missed out one of the questions), which was substituted with that participant's modal score for the rest of the scale. Participants above and below the threshold suggestive of PTSD scored slightly higher on the avoidance subscale than the intrusion subscale, as shown in Table 1.

**[Insert Table 1 here]**

Psychometric properties of the CRIES-8

*Internal consistency*

Given the modification of the instrument and its use in looked after children as opposed to children following a single traumatic event, the psychometric properties of the measure in this sample were reviewed. Cronbach's Alpha was computed

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using SPSS to assess the internal consistency of the CRIES-8. The alpha coefficient of .80 suggests that the items had relatively high internal consistency.

Cronbach's Alpha suggested that, for this sample, the internal consistency of the avoidance subscale was weaker ($\alpha$ = .45) than for the intrusions subscale ($\alpha$ = .84). It is likely that this is because the question, "Do you try not to talk about it?" was very weakly and negatively correlated with the total (r= -.118). Overall, the good internal consistency of the CRIES-8 in this study suggests that participants were probably giving careful consideration to the questions, as opposed to answering them arbitrarily.

The present study found similar mean scores (28 for those scoring above the threshold suggestive of PTSD) to those found by Yule's (1997) analysis of the scores of 87 survivors of the sinking of the cruise ship, Jupiter. Yule found that the 62 children who received a diagnosis of PTSD scored a mean of 26 on the CRIES-8, whereas those who did not meet criteria for PTSD diagnosis scored a mean of 7.8. In addition, the mean score of 23.3 for participants in this study are similar to those found by Perrin et al. (2005) in a sample of children referred to a specialist PTSD clinic, who scored 23.9, on average.

**Discussion**

The present study was intended to evaluate the feasibility of using the CRIES-8 in looked after children; and the prevalence and level of PTSD-type symptoms. Given that this was the first period in which it was introduced, the CRIES return rate of 48% was encouraging. The prevalence rate of above-threshold responses in 75% of the returns suggests the prevalence of PTSD-like symptoms in this sample of the looked after children population could be high. However, it must be acknowledged that this is a small sample size, and the figure may be affected by response bias.

The mean above- and below-threshold scores were similar to a previous study in the context of a life-threatening trauma (Yule, 1997), suggesting that looked after children may be experiencing similar levels of post-traumatic symptoms to those children. However, no diagnostic interview was conducted to investigate whether those scoring ≥ 17 met criteria for PTSD. It is possible that the CRIES-8 was

detecting more general patterns of intrusive thoughts and avoidance, as opposed to PTSD.

*Validity of CRIES-8 with looked after children population*

The CRIES-8 in this study had good internal consistency, and was reported by clinicians to be a quick and clinically useful tool. The validity of this measure with looked after children will require further investigation in a larger-scale study.

*Limitations*

While 43% of the service's caseload completed the CRIES-8, this was a small and self-selecting sample. It is possible that the true prevalence of elevated CRIES-8 scores may be higher or lower than reported here, either because people who have not experienced trauma chose not to complete it, or conversely, because those who have experienced trauma did not wish to think about it, or were protected from seeing the CRIES-8 by their carer(s). Also, it is possible that the additional instructions given with the CRIES-8 may have confounded results by encouraging individuals to think about multiple, rather than single, events.

*Implications of study for healthcare practice*

It is possible that, in this population of looked after children being referred to specialist services due to the presence of mental health difficulties, there may be a high prevalence of PTSD. Clinicians working within the service reported that using the CRIES-8 as a screening tool was clinically useful and improved identification of possible PTSD.

The NICE (2005) guidelines for childhood PTSD, including repeated incidents, recommend trauma-focussed Cognitive Behavioural Therapy (CBT). NICE recommend that healthcare professionals should extend the number of sessions and integrate CBT into an overall care plan for people who have experienced

> *"multiple traumatic events, traumatic bereavement or where chronic disability resulting from the trauma, significant comorbid disorders or social problems are present"*.

<div align="right">(NICE Full Clinical Guideline, 2005, p.64)</div>

According to the cognitive model of PTSD (Ehlers and Clark, 2000), PTSD arises following trauma because of negative interpretations and beliefs about the event(s), and disrupted cognitive processing of the event leading to it not being stored as a normal autobiographical memory, causing intrusions and hypervigilance. Many people cope with these unpleasant intrusions by avoiding thinking about the traumatic event(s), inadvertently continuing to prevent the cognitive processing of the memory, and maintaining the fragmented, sensory nature of the memory, which will continue to cause intrusions and other PTSD symptoms. Trauma-focussed CBT seeks to provide psycho-education and grounding/relaxation techniques, followed by creating a coherent narrative of the traumatic event, or key traumatic events if they are multiple in nature. This narrative is then elaborated upon and re-told to facilitate cognitive processing of the event(s). Distressing appraisals relating to the event and its consequences are also discussed, with the aim of evaluating whether they are fair judgements (for example, a child might believe an assault was their fault; the therapist would encourage the child to re-appraise this belief).

The complex nature of many of these children's backgrounds must not be ignored: during the conception of this project, clinicians raised the question of whether trauma-focussed CBT works for people who have experienced multiple traumas, and there was controversy amongst clinicians regarding whether PTSD is a valid conceptualisation of the reaction of children to prolonged abuse and neglect. This is not a new debate: Scheeringa et al. (1995) developed an alternative set of criteria for infants and young children designed to augment those created by DSM, in recognition of the issue that PTSD can present differently in younger children.

It is therefore possible, or even likely, that trauma-focussed CBT would not be sufficient for children who have experienced multiple traumatic events, or trauma in the context of chronic neglect or difficult family circumstances. Judith Cohen's work (for a review, see Cohen et al., 2010) suggests strongly that adapted trauma-focussed therapies are highly effective for children from complex backgrounds who have experienced multiple traumas, with comorbid behavioural and psychiatric problems. They suggest using the PRACTICE model (incorporating psycho-education; parenting skills; relaxation skills; affect modulation skills; cognitive coping skills; trauma processing; in vivo mastery of trauma reminders' conjoint parent-child

sessions; and enhancing safety) to develop a broad formulation and treatment package. This multifaceted treatment approach is supported by Golding (2010), who states that it is widely recognised that traditional mental health services do not adequately meet the complex needs of looked after children, neglecting to address the interaction between trauma, attachment, and developmental difficulties.

Training and supervision on this topic for professionals working in education, child protection, social work, adoption and fostering, primary health care, CAMHS, and the family justice system would benefit children who have experienced trauma. This would promote awareness of the potential that children may be suffering with PTSD; enable adults to understand why children are behaving in certain ways; and should also facilitate access to appropriate, evidence-based therapies for children and families who wish to engage in this.

*Future research*

It is recommended that future research in this field targets examining the validity of the CRIES-8 with the looked after children population (in terms of whether CRIES-8 scores ≥17 correspond with a diagnostic screen for PTSD); and also examining the applicability of Ehlers and Clark's model of PTSD within this population: to what extent are the maintaining factors identified in this theory present in looked after children with PTSD? In addition, it would be useful to find out how many children who screen positively for PTSD have recognisable trauma event(s) in their history. A recent study by Barron and Mitchell (2014) discovered in an audit of looked after children's notes that there were an average of nine significantly traumatic events in each child's file.

The screening tool used in this research was for children aged eight and above. However, many children under this age also experience traumatic events. Research is required to build on the work of Scheeringa et al. (1995) and Eth and Pynoos (1985) examining the complex interactions between child development (including attachment) and trauma in infancy and early childhood.

Inter-agency research should be conducted to examine the extent to which trauma and PTSD are considered in various settings, for example, what consideration is

given to trauma in schools; family courts; CAMHS; and child protection services? To what extent are children with PTSD receiving evidence-based care? Acknowledging that a large proportion of looked after children presenting with social, emotional or behavioural difficulties may have PTSD, and providing training for professionals and access to evidence-based therapies has obvious and significant cost implications. However, future research and policy should focus on weighing the short-term cost of taking action against the potential long-term costs of inaction; not only to mental health services, but to society as a whole, in terms of non-completion of education; unemployment; substance misuse; and crime (all of which are thought to be linked with childhood trauma (e.g. Messina and Grella, 2006)).

**Conclusion**

The prevalence of traumatic events for looked after children, and their psychological responses to these events, appears to be a relatively under-researched area. This small-scale study suggests that unidentified post-traumatic stress symptoms may be high in looked after children who present with social, emotional and behavioural difficulties, however the small sample size in this study presents obvious limitations. It is recommended that children's services consider using brief trauma screening tools, as opposed to, or in addition to broader measures such as the SDQ, because PTSD is (i) likely to be highly prevalent; and (ii) likely to be under-detected. Screening tools are known to improve mental health assessment, and the CRIES-8 was reported by clinicians in this study to be very useful. In addition, identifying PTSD provides a formulation for adults working with these children to hold in mind, and also points towards a line of treatment which is largely not being offered to most of these children. Given that it is well established that this population experiences higher levels of emotional distress, behavioural problems, and social disadvantage, and that many psychological models place adverse early experiences at the root of this (e.g. Beck et al., 1979; Bowlby, 1977), it is vital that trauma and trauma reactions in looked after children receive further attention, both by researchers and professionals working with children and families.

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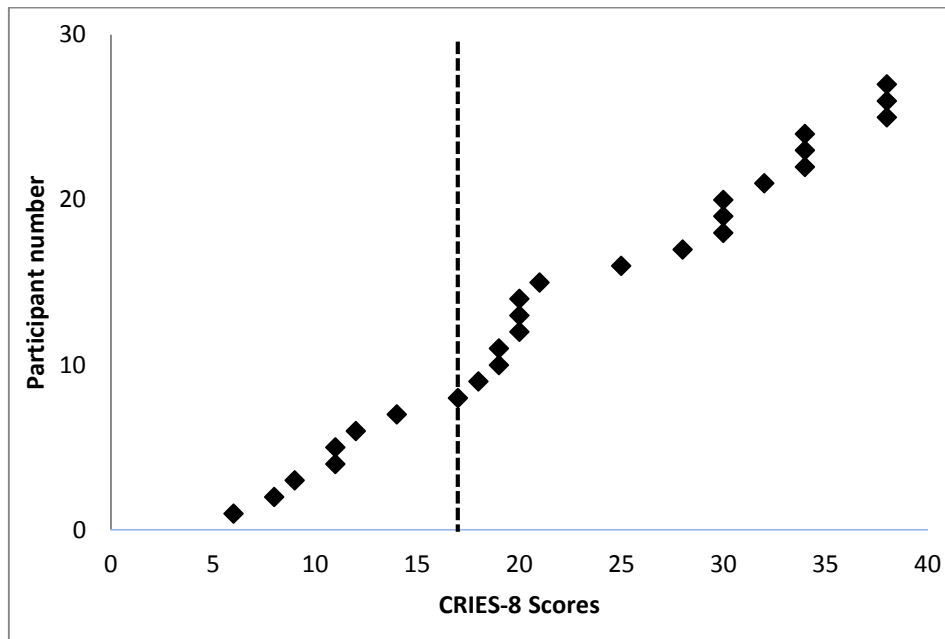Figure 1: Distribution of CRIES-8 scores, with the threshold suggestive of PTSD (≥17) marked with a dotted line



Table 1: Mean scores for the intrusion and avoidance subscales of the CRIES-8

|  | Intrusion subscale mean score | Avoidance subscale mean score |
|---|---|---|
| All participants | 10.7 (SD=6.6) | 12.7 (SD=4.9) |
| Participants scoring ≥ 17 on the CRIES-8 | 13.3 (SD=5.4) | 14.7 (SD=3.6) |