

UNDERSTANDING THE IMPACT OF CHILDHOOD TRAUMA

STEPHEN DRYSDALE BSc (Hons) MSc

STUDENT ID: 4187097

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Abstract

Background: This thesis provides insight into the effects of trauma on children and adolescents. Appropriate assessment tools, and effective interventions for moderating the effects of childhood trauma, are necessary. The aim is to help inform the development of trauma-informed health and social care services, which are key to reducing health-harming behaviours, and therefore service demands and costs in the future.

Methodology: The range of methods employed to explore this topic include a systematic review, psychometric critique, case study, and research study.

Results: The systematic review yielded 792 publications, eight of which were relevant and reviewed. The results suggest that EMDR could be a promising psychotherapeutic approach for the treatment of trauma symptoms in children and adolescents across a range of settings. This is followed by a critique of the widely used psychometric; the Trauma Symptom Checklist for Children (TSCC; Briere, 1996). The TSCC has robust psychometric properties and demonstrates the potential to assist health and social care professionals in the treatment planning and symptom monitoring of childhood trauma-related symptoms. The subject of the case study was

a 14 year old boy accommodated in a Scottish residential school, with a history of childhood trauma and range of problematic behaviours. He was assessed for a range of risk and protective factors including trauma, aggression, educational core skills, self-image/self-esteem, emotional intelligence, and resilience. The principal intervention was The Ross Programme (R&R2 Short Programme for Youth; Ross & Hilborn, 2003.). Self report, together with third party evidence from his care staff and teachers, suggested that he continued to make positive lifestyle changes, although reassessment following the intervention did not highlight any significant reduction in the areas of risk and need identified prior to beginning treatment. Finally, the research study confirms a positive relationship between the experience of trauma and the expression of aggression in children and adolescents, together with the interaction of protective factors (self-image, emotional intelligence, and resilience) on this relationship.

Conclusion: There is a direct relationship between childhood trauma and the onset of problematic behaviours. Findings can inform assessment and intervention processes for health and social care services providing support to children and adolescents presenting with trauma. Research that informs the continuing development of trauma-informed services is

important to reduce health-harming behaviours, with a subsequent reduction in future service demands and costs.

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Preface

During my work with vulnerable children and young people over the past twenty years, I have developed a particular passion for supporting those who have suffered significant childhood trauma and adversity. My continuing commitment to the residential childcare sector has been the driving force behind pursuing the Doctorate in Forensic Psychology, and has undoubtedly informed the theme of this research thesis. I am motivated to help inform the development of trauma-informed health and social care services, and aim to do so through the forthwith consideration given to applicable assessment methods and programmes of intervention.

Overview

This thesis provides insight into the effects of trauma on children and adolescents. The variability in youth response to trauma suggests complex underlying mechanisms, including the timing and severity of adversity, the experience of cumulative adversity, and the presence of protective factors (e.g. resilience, self-esteem, and emotional intelligence) that moderate or exacerbate the impact of the exposure. Appropriate assessment measures and effective interventions for moderating the effects of childhood trauma are necessary. The ultimate aim is to help inform the development of trauma-informed health and social care services, subsequently enhancing assessment and treatment provision, and the future life prospects for young people.

Chapter One provides an introduction to the thesis, exploring the impact of childhood trauma, and rationale for why continuing research in this field is so important. The overall aims of the thesis are outlined.

Chapter Two presents a review of the literature exploring the effect of eye movement desensitisation and reprocessing (EMDR) as a treatment on reducing symptoms of post-traumatic stress in children and adolescents. A systematic approach was used to search and assess randomised control

trial (RCT) studies. The data was then synthesised and discussed regarding the clinical implications and recommendations for further research. The effectiveness of EMDR treatment in comparison to other therapies including cognitive behavioural therapy (CBT), trauma-focused CBT (TF-CBT) and cognitive behavioural writing therapy (CBWT) is also discussed.

Chapter Three provides a critical appraisal of the Trauma Symptom Checklist for Children (TSCC; Briere, 1996). The TSCC is widely used in clinical and research settings to assess PTSD symptoms in youth following traumatic events. The psychometric properties were examined to see whether this tool was suitable for use in later chapters. The reliability and validity were explored, and the outcomes are discussed in terms of the tool's utility.

Chapter Four reports on a case study involving the assessment and treatment of a fourteen year old boy displaying antisocial behaviour, with a history of complex trauma. The TSCC was among a range of measures used to assess risk and protective factors, both prior to and following a twelve session CBT-based treatment programme; The Ross Programme (R&R2, Short Programme for Youth; Ross &

Hilborn, 2003). Formulation, treatment outcomes, and recommendations for next steps are discussed.

Chapter Five provides research into the relationship between trauma and aggression in young people, and the role of protective factors (self-image, emotional intelligence, and resilience) in controlling this relationship. Archival data from the past decade for a population of youth attending residential schools in Scotland were analysed. The measures used were the TSCC, Aggression Questionnaire (AQ; Buss & Warren, 2000); Self Image Profiles (SIP; Butler, 2001); Bar-On EQ-i:YV (Bar-On & Parker, 2000) and Resiliency Scales for Children and Adolescents (RSCA; Prince-Embury, 2007). Each of these measured were also employed during the case study reported in the previous chapter. Results are reported and discussed in terms of their implications.

The final chapter provides a summary of the preceding chapters' findings in order to address the overall aims of the thesis. Clinical implications and recommendations for future research are also discussed.

Chapter One

General Introduction

Childhood Trauma

Trauma is defined by the DSM-V as exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury or other threat to one's physical integrity; or witnessing an event that involves death, injury, or threat to the physical integrity of another person (American Psychiatric Association, 2013).

Childhood trauma such as abuse, neglect, and witnessing domestic violence, are highly prevalent, and are linked to long-term negative health ouctomes, antisocial behaviours, and high societal costs (Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998; Gjelsvik, Nocera, & McQuaid, 2015).

Individuals with childhood histories of trauma make up nearly the entire criminal justice population, with physical abuse and neglect associated with very high rates of arrest for violent offences (Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). Further, 75% percent of perpetrators of child sexual abuse report to have themselves been sexually abused during childhood (Romano & De Luca, 1997). This tendency to repeat represents an integral aspect of the cycle of violence in our society (van der Kolk, 2017).

It follows that prevention, early screening, intervention and moderation of the effects of childhood trauma is central to reducing demand on health and social care services, and insight as to the interactive effect of protective factors is therefore important.

There is growing literature on how children with PTSD may have internal protective factors in place that help them adapt and thrive in the context of adversity and in response to stress (Chen & Miller, 2012; Ellis, Bianchi, Griskevicius, & Frankenhuis, 2017). Research should continue to evaluate the effects of protective factors on treatment response, as well as whether these factors exist prior to the intervention, or develop as a result of the intervention (Purewal Boparai, Au, Koita, Oh, Briner, Burke Harris, & Bucci, 2018).

Diagnosis of Childhood Trauma

The DSM-V diagnosis of post-traumatic stress disorder (PTSD) does not capture the developmental effects of complex trauma exposure (Cook, Spinazzola, Ford, Lanktree, Blaustein, Cloitre, DeRosa, Hubbard, Kagan, Liautaud, Mallah, Olafson, & van der Kolk, 2005). Children exposed to maltreatment, family violence, or loss of their caregivers often meet diagnostic criteria from the DSM-V for depression, attention-deficit/hyperactivity disorder (ADHD), oppositional defiant

disorder (ODD), conduct disorder, anxiety disorders, eating disorders, sleep disorders, communication disorders, separation anxiety disorder, and reactive attachment disorder (Cook et al, 2005). These diagnoses each capture only a limited aspect of the traumatised child's complex self-regulatory and relational impairments (van der Kolk, 2017). In the absence of any recognised diagnosis for what may be most appropriately termed "developmental trauma disorder" (van der Kolk, 2017), clinicians and researchers in the field of childhood trauma will regularly rely on symptomatic measures such as The Trauma Symptom Checklist for Children (TSCC; Briere, 1996).

Interventions for Childhood Trauma

Various interventions for PTSD in youth have been used, including pharmacological agents such as tricyclic antidepressants, sertraline, or propranolol. Although medication might be helpful in individual cases, evidence for the use of psychopharmacological interventions as a first-line treatment in PTSD in children is currently insufficient (Strawn, Keeshin, DelBello, Geracioti, & Putnam (2010); and Keeshin and Strawn, 2014).

Trauma-focussed cognitive behaviour therapy (CBT) is the primary psychological therapy recommended for treatment of

PTSD in children and adolescents by NICE (2005) and the World Health Organization (2013). Although EMDR is also recommended as a treatment for both adults and children, there is a more limited evidence base in youth.

Rationale for Thesis Chapters

The most recent meta-analysis on the effectiveness of EMDR showed youth treated with EMDR therapy present more significant reduction in their trauma-associated symptoms as compared to patients in wait-list/placebo conditions, and comparable results to CBT (Moreno-Alcázar, Treen, Valiente-Gómez, Sio-Eroles, Pérez, Amann, & Radua, 2017). However there are significant limitations in the methodology due to the heterogeneity of the selected studies, and inclusion criteria. These are discussed in Chapter Two and partly justify the updated systematic review. Additionally, the most recent randomised control trial (RCT) for the effect of EMDR on youth (de Roos, van der Oord, Zijlstra, Lucassen, Perrin, Emmelkamp, & de Jongh, 2017) is by far the largest of its kind to date (N=103). The study shows both EMDR and Cognitive Behavioural Writing Therapy (CBWT) as yielding equally significant reductions in trauma symptoms. Importantly, these gains were attained with significantly less therapist

contact time for EMDR than CBWT. This RCT had not previously been included in a systematic review of EMDR.

Chapter Two highlights the challenge presented in synthesising quantitative data from a diverse range of trauma symptom measures across studies. The use of standardised instruments is recommended in order to draw more meaningful comparisons of effectiveness across different treatment modalities.

The TSCC is widely accepted as the most commonly used assessment tool for trauma symptoms in children and adolescents in clinical settings (Elhai, Gray, Kashdan, & Franklin, 2005). Further, the author has over a decade of experience using the TSCC with children and adolescents in residential care settings, foster care placements, and schools. The tool has proven to be both practical in terms of its ease of administration, scoring and interpretation, and useful with regard to informing case formulation and symptom monitoring. Chapter Three examines the TSCC in terms of its scientific properties, its applicability to the assessment of trauma in young people, and its research uses.

Cognitive behavioural therapies such as anger management, multimodal interventions and skills training have shown to be effective in reducing aggression (Sukhodolsky, Kassinove, &

Gorman, 2004). The Ross Programme (R&R2; Ross and Hillborn, 2003) is a manualised cognitive behavioural programme aimed specifically at 13 to 16 year olds who are assessed at risk of reoffending or likely to exhibit antisocial behaviour. R&R2 has been shown to improve problem-solving ability, behaviour, criminal attitudes, and the risk of general re-offending in a Scottish residential care setting (Curran and Bull, 2009). This justifies the programme of intervention used for the case study in Chapter Four with a 14 year old boy in residential care displaying aggression and antisocial behaviours. The treatment measures include the TSCC, Self Image Profiles (SIP; Butler, 2001), Bar-On EQ-i:YV (Bar-On & Parker, 2000), Resiliency Scales for Children and Adolescents (RSCA; Prince-Embury, 2007) and Aggression Questionnaire (AQ; Buss & Perry, 1992).

Using these same measures, Chapter Five aims to provide insight into the relationship between trauma and aggression in youth, and the role of select protective factors (self-image, emotional intelligence and resilience) in this relationship. With a measurable increase in stress and adversity from one generation to the next, the importance of further research into the resiliency of young people is clear (Goldstein, 2007). Researchers with diverse data sets have been encouraged to examine their data with regard to resilience and other

protective factors that might lead to overcoming childhood trauma (Widom, 2007). This justifies the research project in Chapter Five.

The thesis aims are as follows:

1. To systematically review the effect of eye movement desensitisation and reprocessing (EMDR) on reducing symptoms of post-traumatic stress in children and adolescents (Chapter Two).
2. To critically evaluate the TSCC as a measure of trauma symptoms in terms of its psychometric properties, and clinical applicability (Chapter Three).
3. To practically explore the assessment, formulation, and treatment of an adolescent boy with a history of complex trauma displaying aggressive and antisocial behaviour (Chapter Four).
4. To explore the relationship between trauma and aggression in young people, and the role of protective factors in controlling this relationship (Chapter Five).

The ultimate aim is to help inform the development of trauma-informed health and social care services, subsequently enhancing assessment and treatment provision, and the future life prospects for young people.

Chapter Two

A Systematic Review Exploring the Effect of Eye Movement Desensitisation and Reprocessing (EMDR) on Reducing Symptoms of Post-Traumatic Stress in Children and Adolescents.

Abstract

Background

To prevent adverse long-term effects, children and adolescents who suffer from post-traumatic stress symptoms need treatment. Practice guidelines recommend trauma-focussed psychotherapies, mainly cognitive behavioural therapy (CBT). Eye movement desensitisation and reprocessing (EMDR) therapy is a brief trauma-focussed, evidence-based treatment for PTSD in adults, with an increasing number of research trials involving children and adolescents.

Objectives

The aim of this systematic review is to summarise the most important findings from RCTs conducted on the EMDR treatment of post-traumatic symptoms in children and adolescents. The difference in trauma symptomatology between pre-treatment and immediate post-treatment using EMDR is the specific outcome of interest, and treatment effects will be compared to those of available comparison groups treated with alternative psychological therapies such as CBT. Where data are available, any follow-up effects of EMDR treatment will also be reported.

Method

To identify RCTs, an electronic search of three bibliographic databases was conducted, in addition to scanning the references of previous studies, contacting experts and hand-searching key journals. Exclusion and inclusion criteria were applied, yielding eight publications that underwent quality assessment and data extraction.

Results

The full search yielded 792 hits. After excluding 196 duplicates, and 582 references that did not meet the inclusion criteria, eight RCTs were reviewed.

Conclusion

Despite the small number of publications, the results of this review suggest EMDR to be a promising psychotherapeutic approach for the treatment of PTSD and symptoms in children and adolescents. However, a lack of homogeneity across the studies included makes the synthesis of findings problematic, and ultimately reduces the impact of conclusions derived from the evidence. Further research with larger samples is needed to confirm these preliminary results, and to analyse differences in the efficacy of EMDR therapy versus CBT.

Introduction

Childhood Trauma

Trauma is defined by DSM-V as exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury or other threat to one's physical integrity; or witnessing an event that involves death, injury, or threat to the physical integrity of another person (American Psychiatric Association, 2013). This applies to a large number of children and adolescents throughout the world who have been exposed to traumatic events, such as physical or sexual violence, mass conflict, serious accident, natural disaster, or chronic illness (e.g. Attanayake, McKay, Joffres, Singh, Burkle, and Mills, 2009; Costello, Erkanli, Fairbank, & Angold, 2002). Characteristic symptoms of Post-traumatic Stress Disorder (PTSD) are intrusive memories of the traumatic event, avoidance of reminders of the traumatic event, negative alterations in cognitions and mood, and increased arousal (American Psychiatric Association, 2013).

The Adverse Childhood Experiences (ACEs; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998) framework provides an explanatory model for the link between traumatic experiences in childhood and negative outcomes in

later life. Research on ACEs has identified a correlation between exposure to ACEs and premature mortality (e.g. Kelly-Irving, Lepage, Dedieu, Bartley, Blane, Grosclaude, Lang & Delpierre, 2013) and people with experience of six or more ACEs have on average a 20 year lower life expectancy than those with no ACEs (Brown, Anda, Tiemeier, Felitti, Edwards, Croft & Giles, 2009).

Traumatic experiences belong to the etiological underpinnings of many psychiatric disorders (Kim and Lee, 2016; Fusar-Poli, Tantardini, De Simone, Ramella-Cravaro, Oliver, Kingdon, Kotlicka-Antczak, Valmaggia, Lee, Millan, Galderise, Balottin, Ricca, & McGuire, 2017). Plus, a comorbid diagnosis of PTSD can worsen the prognosis of other psychiatric disorders (Assion, Brune, Schmidt, Aubel, Edel, Basilowski, Juckel, & Frommberger, 2009).

PTSD has been shown to be six times more prevalent among adults who have experienced persistent or repeated exposure to interpersonal trauma (i.e., complex trauma; Cook et al., 2005; Herman, 1992) during childhood (Afifi, Boman, Fleisher, & Sareen, 2009). Similarly, Hébert, Tourigny, Cyr, Mcduff, and Joly (2009) found that adults having been exposed to sexual abuse in childhood were likely to be currently experiencing psychological distress and PTSD symptoms.

There is an established ACEs-related higher usage of healthcare services as evident from 18 years of age and continued throughout adult life (Bellis, Hughes, Hardcastle, Ashtron, Ford, Quigg. & Davies, 2017), therefore the development of trauma-informed health and social care services are key to reducing health harming behaviours. It follows that prevention, early assessment screening, and intervention for moderating the effects of trauma is central to improving the health and wellbeing of youth and reducing health care service demand in the future.

There are a wide variety of psychological interventions for the treatment of traumatised children outlined in the clinical literature (Cohen, Mannarino, & Rogal, 2001). Interventions include, but are not limited to, CBT (e.g. Saunders, Berliner & Hanson, 2004), EMDR (e.g. de Roos et al, 2017), psychoanalytic techniques (e.g. Silverman, Ortiz, Viswesvaran, Burns, Kolko, Putnam, & Amaya-Jackson, 2008), family therapy (e.g. Becker-Weidman & Hughes, 2008), creative arts (e.g. Eaton, Kimberly, & Widrick, 2007), and play therapy (e.g. Ogawa, 2004).

Interventions also include pharmacological agents such as tricyclic antidepressants, sertraline, or propranolol. However, two systematic reviews have concluded that although

medication might be helpful in individual cases, evidence for the use of psychopharmacological interventions as a first-line treatment in PTSD in children is currently insufficient (Strawn, Keeshin, DelBello, Geracioti, & Putnam (2010); and Keeshin and Strawn, 2014).

Trauma-focussed cognitive behaviour therapy (CBT) is the primary psychotherapy recommended for treatment of PTSD in children and adolescents by NICE (2005) and the World Health Organization (2013). Although EMDR is recommended for use with adults there is a more limited evidence base in youth. A meta-analysis showed that for children, EMDR therapy resulted in a substantial reduction in PTSD symptoms compared to therapy-as-usual or no-treatment control groups (Rodenburg, Benjamin, De Roos, Meijer, and Stams, 2009). Additionally, although CBT and EMDR were both effective, EMDR added a small but significant incremental value.

A more recent meta-analysis (Moreno-Alcázar, Treen, Valiente-Gómez, Sio-Eroles, Pérez, Amann, & Radua, 2017) showed that youth treated with EMDR therapy present more significant reduction of their trauma-associated symptoms as compared to patients in wait-list/placebo conditions, and comparable results to CBT. However there are significant limitations to the methodology employed by Moreno-Alcázar et

al. (2017) due to the heterogeneity of the selected studies, and inclusion criteria. Of the eight RCTs included in the meta-analysis, the largest study (n=67) had participants with an age range from sixteen to twenty-five years (m=20.9) (Scheck, Schaeffer, & Gillette, 1998), whereas the seven smaller studies ranged from m=8.4 years to m=13.0 years. Jackknife analysis suggested that the Moreno-Alcázar et al. (2017) meta-analysis was no longer statistically significant after exclusion of the RCT by Scheck et al. (1998). Further, there were inconsistencies in study design, e.g. seven of the eight RCTs included in the meta-analysis used blinded assessment procedures, whereas one did not (Kemp, Drummond, & McDermott, 2010).

The most recent randomised control trial (RCT) for the effect of EMDR on youth (de Roos, van der Oord, Zijlstra, Lucassen, Perrin, Emmelkamp, & de Jongh, 2017) is the largest of its kind to date (N=103), reporting both EMDR and Cognitive Behavioural Writing Therapy (CBWT) as yielding equally significant reductions on post-treatment trauma measures. Of note, gains were attained with significantly less therapist contact time for EMDR than CBWT. This RCT is yet to be included in a systematic review of EMDR.

The aim of this systematic review is to summarise the most important findings from RCTs conducted on the EMDR treatment of post-traumatic symptoms in children and adolescents.

Eye Movement Desensitisation and Reprocessing (EMDR)

EMDR is a psychotherapeutic approach, developed in the late 1980's by Francine Shapiro (Shapiro, 1989), and recognised by the World Health Organization (2013) as a psychotherapy for the treatment of PTSD in children, adolescents, and adults. The therapy aims to treat traumatic memories and their associated stress symptoms through a standard protocol which includes eight phases. Bilateral stimulation is usually performed through rapid saccadic eye movements, however, other external bilateral stimuli have also been used in EMDR treatment with the same efficacy, namely taps (tapping the hands/shoulders of the patient) (Beer and de Roos 2004) and ear tones, (using beeps or finger snaps) (Shapiro, 2007).

To desensitise the discomfort caused by traumatic memories, EMDR aims to achieve their reprocessing and integration within the patient's standard biographical memories (Shapiro, 2005). A three-pronged approach is used during treatment, which includes questions regarding the aetiology of the

traumatic event (i.e. past), the triggers of PTSD symptoms (i.e. present), and the installation of templates related to adequately coping with upsetting events (i.e. future) (Shapiro, 2001). When treating children, an adapted protocol can be used as required, with age appropriate modifications suggested by Greenwald (1999), Tinker and Wilson (1999), Ahmad and Sundelin-Wahlsten (2007), and Adler-Tapia and Settle (2008).

EMDR Procedure

Treatment begins with taking history and planning treatment, explanation of and preparation for EMDR. The therapist then asks the patient to focus on the identified traumatic memory by using directive questioning. The patient is then directed to give a negative/dysfunctional cognition related to the traumatic memory, and additionally, to create a positive, functional cognition. Attention is then given to the emotion that is connected to the memory and dysfunctional cognition, and the patient is asked to locate places in their body where any physical phenomena are felt. Following this, the patient focuses on the traumatic memory and its associated dysfunctional cognition, emotion and the physical sensations in combination with the therapist-led bilateral stimulation. Each new connected association with the traumatic memory is

followed by a new series of stimuli. The level of disturbance is repeatedly assessed on a ten point Subjective Units of Disturbance (SUD) Likert-scale until decreased to zero. The traumatic memory is then connected with the earlier formulated functional cognition on the Validity of Cognition Scale (VOC), a seven point Likert-scale, while conducting new sets of stimuli. This is repeated until the patient assigns a seven to the functional cognition. Lastly, the therapist checks whether physical sensations are still present through a further body-scan, followed by positive closure and re-evaluation. The number of sessions required varies according to the type of traumatic event and responsiveness.

EMDR Applications

The effectiveness of EMDR for the treatment of Adults with PTSD in adults has been well-evidenced by several independent meta-analysis (e.g. Davidson and Parker, 2001; Seidler and Wagner, 2006; Chen et al. 2014, 2015, 2018; Cusack, Jonas, Forneris, Wines, Sonis, Middleton, Feltner, Brownley, Olmsted, Greenblatt, and Gaynes, 2016).

EMDR is not limited to the treatment of people with PTSD and its application is expanding to the treatment of other conditions and disorders co-morbid to PTSD (e.g. Novo, Landin-Romero, Radua, Vicens, Fernandez, Garcia, Pomarol-

Clotet, McKenna, Shapiro, & Amann, 2014; Perez-Dandieu and Tapia, 2014).

EMDR Criticism

Despite its expanding application, EMDR has been subject to much criticism for several reasons, primarily with reference to the absence of an empirically validated model explicitly explaining the effects of the EMDR method (e.g. Gunter and Bodner, 2008). It has however been demonstrated that eye movements contribute to less vivid and therefore less unpleasant memories in patients (e.g Barrowcliff, Gray, MacCulloch, Freeman, and MacCulloch, 2004), decreased psychophysiological arousal, and increased parasympathetic activity in patients with PTSD symptoms (e.g. Sack, Lempa, Steinmetz, Lamprecht, & Hofmann, 2008).

The role of the working mechanism for EMDR in the form of the bilateral stimuli is also subject to criticism (Lohr, Lilienfeld, Tolin, & Herbert,1999). Among many other theories, current hypotheses include the potential that EMDR may induce a REM sleep state-like condition (e.g., Stickgold, 2007) and the hypothesis of relaxation (Shapiro, 2007).

Incremental efficacy, meaning that a new treatment should add incremental value to existing treatments, has not yet been well established for EMDR. Rodenberg et al. (2009)

found incremental efficacy of EMDR when compared to established treatment, however there were only seven studies included in the meta-analysis, most of these had design limitations, and there have been no further publications aiming to replicate the findings. Studies comparing EMDR with non-established trauma treatments (Treatment As Usual), studies with a no-treatment control group and non-controlled studies do not allow testing of incremental efficacy. Rodenberg et al (2009) highlight that these studies may detect significant treatment effects, however cannot corroborate the incremental efficacy of EMDR.

It is beyond the scope of the current review though to discuss all these criticisms in detail.

Summarising the most important results of the available randomised control trials (RCT) conducted in this field, this systematic review aims to determine the effect of EMDR treatment in reducing symptoms associated with children and adolescents having suffered traumatic events. The difference in trauma symptomatology between pre-treatment and immediate post-treatment using EMDR is the specific outcome of interest, and treatment effects will be compared to those of available comparison groups e.g. waiting list, or groups treated with alternative psychological therapies such as CBT.

Where data are available from the studies included, any follow-up effects of EMDR treatment will also be reported.

Methodology

Search Methods

Following consultancy with the University of Nottingham librarian, search terms were entered. Appropriate truncation and wildcard symbols (e.g "*") were utilised. These were included at the end of some terms to ensure additional relevant terms were also included (e.g. "*teen*" to include the terms "teenage", "teenager", and "teenagers"). The following search terms were used to detect relevant studies:

1. "adolesc*" OR "preadolesc*" OR "pre-adolesc*" OR "boy*" OR "girl*" OR "child*" OR "infant*" OR "juvenil*" OR "minors" OR "school*" OR "pediatri*" OR "paediatri*" OR "pubescen*" OR "puberty" OR "student*" OR "teen*" OR "young" OR "youth*" OR "school*" OR "preschool*" OR "pre-school*" OR "high school" OR "high-school" OR "college*"

   AND

2. "PTSD" OR "post trauma*" OR "posttrauma*" OR "posttrauma*" OR "trauma*" OR "stress"

   AND

3. "eye movement desensit*" OR "emdr"

The following bibliographic databases were searched; PsycINFO (OVID), Medline (OVID), and Embase (OVID), during August 2018. Reference lists from the existing systematic reviews (Rodenburg et al. 2009; Moreno-Alcázar et al. 2017) were scanned. Reference lists from the included articles were also examined. Also, two experts were contacted by email to enquire about any on-going or unpublished primary research (Francine Shapiro, and the EMDR Institute).

Study Selection

An initial screening of study titles and abstracts was conducted using the inclusion and exclusion criteria (see Appendix A). The objectives of this review are defined according to the Population, Intervention, Comparator, and Outcome (PICO):

- **Population/Problem**

Children and adolescents up to eighteen years and 11 months old, who had suffered a traumatic event(s) and presented with symptoms, or a diagnosis of PTSD.

- **Intervention**

Eye Movement Desensitisation and Reprocessing (EMDR).

- **Comparison**

Control groups such as; treatment as usual; waiting list or no treatment; pharmacological therapy; or other treatments in children or adolescents who had suffered a traumatic event(s).

- **Outcome**

The effect of EMDR in reducing symptoms associated with children and adolescents having suffered traumatic events.

Publication Types

Only blinded randomised control studies were included.

Language

No language restrictions were imposed and attempts were successfully made to translate findings.

Time Frame

No time restrictions were imposed.

Exclusion

The studies that clearly did not meet the criteria and therefore did not explicitly address the subject area were discarded. Case studies, quasi-experimental studies, narrative reviews, editorials, commentaries and any other type of opinion papers were excluded.

Risk of Bias

The aim of this stage was to assess the level of potential bias in the included studies.

The Platinum Standard (Hertlein and Ricci, 2004).

The Platinum Standard (PS; Hertlein and Ricci, 2004) builds on the previously accepted standards by which to evaluate EMDR effectiveness studies; the Gold Standard (GS; Foa and Meadows, 1997) and the Revised Gold Standard (RGS; Maxfield and Hyer, 2002). The PS includes thirteen comprehensive criteria for assessing EMDR research; including (1) clearly defined target symptoms, (2) reliable and valid measures, (3) use of blind evaluators, (4) information regarding an assessor's training, (5) manualised, replicable, and specific treatment, (6) random assignment, (7) treatment adherence, (8) non-confounded conditions, (9) use of multimodal measures, (10) length of treatment, (11) level of therapist training, (12) use of a control group, and (13) effect size reporting. Scores can range from zero to thirteen, with higher scores indicating higher quality studies. The PS was used to assess the quality of all included studies, with risk of bias rated descriptively for each criterion. See Appendix B for a description of the PS scales and scoring guidance.

The Jadad Scale (Jadad, Moore, Carroll, Jenkinson, Reynolds, Gavaghan, & McQuay, 1996).

According to a recent systematic review on scales used to assess the quality of randomised control trials, the Jadad Scale (Jadad et al. 1996) is by far the most frequently cited and the most commonly used scale by the health care community (Olivo, Macedo, Gadotti, Fuentes, Stanton & Magee, 2008). The Jadad Scale was found to present the best validity evidence and has been tested for reliability in a number of different settings. As such the Jadad scale was also selected to assess the quality of each study through using the three domains of (1) randomisation, (2) double-blinding and (3) drop-outs. See Appendix C for a description of the Jadad scales and scoring guidance.

Data Extraction

The data was extracted from all the included articles by using a proforma (see Appendix D). The following information was extracted: author(s), publication year, country of study, research aims, setting, type(s) of control, participant characteristics, nature of traumatic event(s), number of EMDR sessions, primary measures, length of post-treatment assessment(s), and overall reporting. The data extracted was then analysed using descriptive statistics to outline the study aims, the participants, the type of exposure, primary measures, and the findings. Due to the large heterogeneity of these studies, the existing information did not allow for a meta-analysis and therefore a qualitative review is reported. The RCT findings were clustered into two separate categories; the effect of EMDR on reducing symptoms of PTSD in children and adolescents, and the comparative effect of EMDR against control group measures.

Summary Measures

The difference in trauma symptomatology between pre-treatment and immediate post-treatment using EMDR is the specific outcome of interest, and treatment effects will be compared to those of available comparison groups e.g. waiting list, or groups treated with alternative psychological therapies

such as CBT. Where data are available from the studies included, any follow-up effects of EMDR treatment are also reported.

Results

The full search yielded 792 publications. Five hundred and eighty two irrelevant publications were excluded based on title and abstract screening, and 195 duplicates were removed. A further five publications were excluded due to inclusion/exclusion criteria; three due to study design (not blinded RCT; Kemp et al. 2010; Mevissen, Didden, Korzillius & de Jongh, 2017;Trentini, Pagani, Fania, Speranza, Nicolais, Sibilia, Inguscio, Verado, Fernandes, & Ammaniti, 2015), one due to the median age of participants (m=20.93; Scheck et al. 1998), and one due to participant selection criteria (not explicitly exposed to trauma; Wanders, Serra, & de Jongh, 2008). A further publication initially included (Hassanzadeh-Moghaddam and Khalatbari, 2016) following a manual hand search from the reference lists of existing publications was excluded due to inadequate details for bias and quality assessment (authors contacted, no response). See Appendix E for a list of excluded studies.

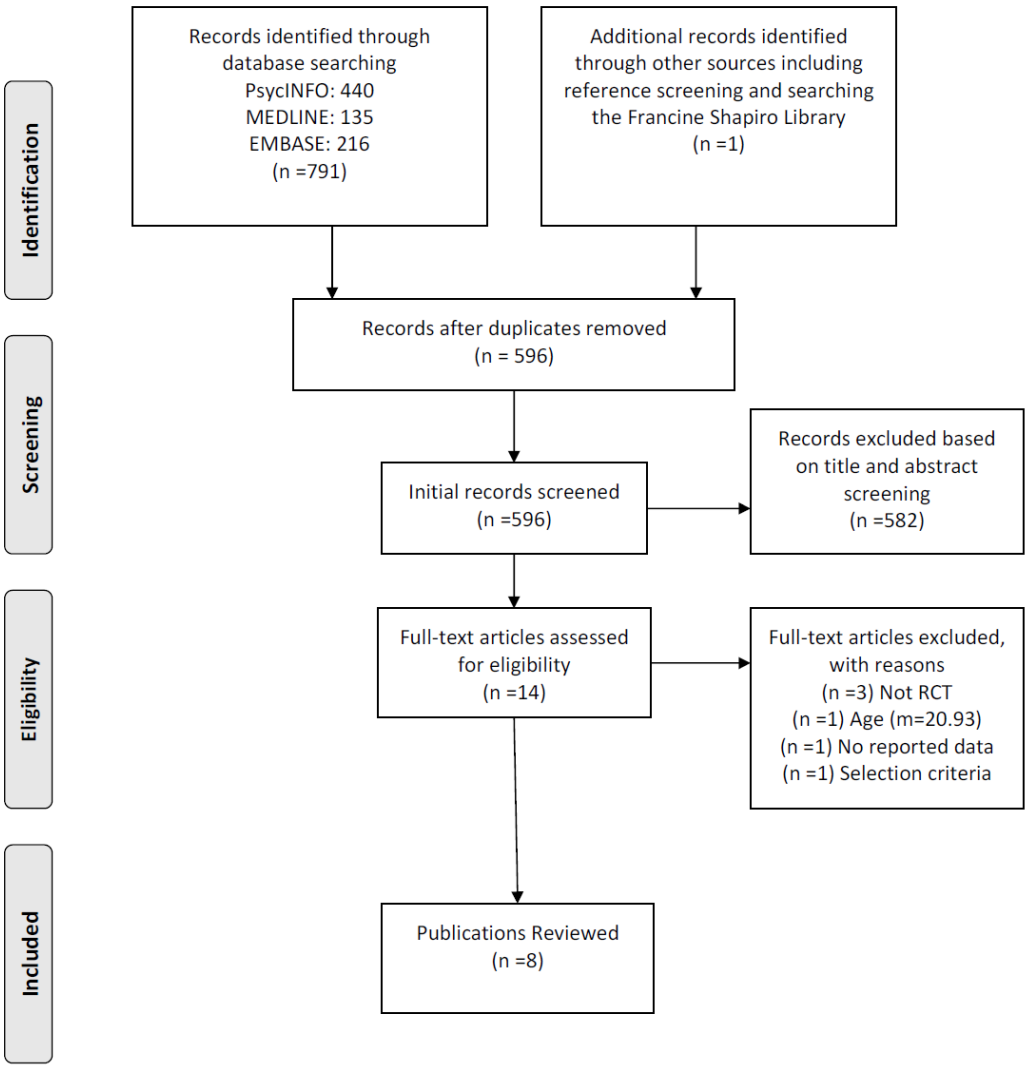
The remaining eight publications were included for review; Ahmad, Larsson, & Sundelin-Wahlsten (2007); Chemtob, Nakashima, Hamada, & Carlson, (2002); de Roos, Greenwald, den Hollander-Gijsman, Noorthoorn, van Buuren, & de Jongh, (2011); de Roos et al. (2017); Diehle, Opmeer, Boer,

Mannarino, & Lindauer, (2015); Jaberghaderi, Greenwald, Rubin, Zand, & Dolatabadi, (2004); Rubin, Bischofshausen, Conroy-Moore, Dennis, Hastie, Melnick, Reeves, & Smith, (2001); and Steinberg, Brymer, Kim, Briggs, Ippen, Ostrowski, & Pynoos, (2013).

Selection Process

Figure 1 shows the selection process. Those studies that met the inclusion criteria were obtained for the full review (see Table 1. for included publications).

Figure 1. The Selection Process. Flow diagram of excluded and included studies according to the PRISMA guide (Moher et al. 2009).



Characteristics of Included Studies

Participants

Within this review of eight studies, 340 participants were considered, with a reasonable gender ratio of 152 males to 188 females. One study (Soberman et al. 2002) was restricted to a male-only cohort (n=19) and another (Jaberghaderi et al. 2004) to only females (n=14). The remaining six studies were mixed gender. There is no suggestion that any samples may have overlapped.

Each study recorded the ages of participants, with all aged between six and eighteen years old. Mean ages were reported by each study, with the exception of Jaberghaderi et al. (2004) due to the limited range of their recruited sample; all aged between 12 and 13 years old. If it is reasonably assumed that the mean age for Jaberghaderi et al. (2004) is 12.5, the overall mean age across the studies was 11.2 years. Given the age of participants, all studies gained appropriate consent from parents/caregivers.

Settings

The studies crossed three settings: psychiatric outpatient clinics (five studies; Rubin et al. 2001; Ahmad et al. 2007; de Roos et al. 2011, 2017; and Diehle et al. 2015), school (2

studies; Chemtob et al. 2002; and Jaberghaderie et al. 2004), and residential/day care (1 study; Soberman et al. 2002).

Four countries produced the research: Netherlands (three studies), the United States of America (USA; three studies), Sweden (one study), and Iran (one study).

Trauma Exposure

Four studies selected participants with PTSD symptoms being tied to a single traumatic event. Chemtob et al. (2002) included participants with symptoms as a result of a natural disaster (hurricane in Hawaii). De Roos et al. (2011) included participants with symptoms as a result of a local firework factory explosion. Jaberghaderi et al. (2004) included participants with symptoms as a result of sexual abuse. De Roos et al. (2017) included participants with symptoms being tied to any single traumatic event that occurred at least one month prior to trial assessment.

Three studies mixed participants with PTSD symptoms from a single traumatic, or multiple traumatic events; Soberman et al. (2002), Ahmad et al. (2007), and Diehle et al. (2015)

One study reviewed selected participants on the basis of referral from their current therapist in a psychiatric outpatient clinic (Rubin et al. 2001). The authors report that twenty-five

out of thirty-nine participants had either experienced abuse or witnessed domestic violence, but no further description is included.

Table 1 further details the characteristics of the eight included studies.

Table 1. Characteristics of Included Studies.

Study	Country	Setting	Type of Control	Participant (N) EMDR/ Control	Traumatic Event	Age Range	Gender (N) Male/ Female	EMDR Sessions (N)	Time of Post-Treatment Assessments	Primary Measures	EMDR Post-Treatment Results
Rubin et al (2001)	US (Texas)	Psychiatric Outpatient	Treatment as Usual	23/16	Multiple (25/39 experienced abuse or witnessed domestic violence)	6-15 (M=9.3)	19/20	≥5	6 Months	CBCL	No significant difference found for including EMDR in addition to TAU for the cohort (p = 4.67)
Soberman et al (2002)	US	Residential /Day care	Treatment as Usual	14/5	Multiple	10-16 (M=13.35)	19/0	3	2 Months	IES-8 CROPS PROPS	Not significant, but IES went from clinical to non-clinical levels for both groups, with a trend favouring EMDR. No significant difference found on the CROPS or PROPS.
Chemtob et al (2002)	US (Hawaii)	School	Waiting List	17/15	Single. Natural Disaster (Hurricane)	6-12 (M=8.4)	10/22	4	Immediate 6 Months	KRI CRI RCMAS CDI	Immediate CRI scores significantly lower than WL; F(1,30)=37.35, p<.0009 Treatment effects maintained at follow-up; F(1,30)=51.14, p<.0009 RCMAS Total score significantly lower

Study	Country	Setting	Type of Control	Participant (N) EMDR/ Control	Traumatic Event	Age Range	Gender (N) Male/ Female	EMDR Sessions (N)	Time of Post-Treatment Assessments	Primary Measures	EMDR Post-Treatment Results
											than WL F(1,30)=15.30, p<.0009 Treatment effects maintained at follow-up; F(1,30)=17.85, p<.0009 CDI Total score significantly lower than WL F(1,30)=13.30, p<.0009 Treatment effects maintained at follow-up; F(1,30)=18.05, p<.0009
Jaberghaderi et al (2004)	Iran	School	CBT	7/7	Single. Sexual Abuse	12-13 (M=N/A)	0/14	4-8	2 Weeks	CROPS PROPS	On the CROPS, compared to pre-treatment, the EMDR group improved significantly (p < 0.05), but the CBT group did not (p=0.116). However, the difference in improvement between groups was not significant. On PROPS both groups improved significantly (p < 0.05), but the difference in

Study	Country	Setting	Type of Control	Participant (N) EMDR/ Control	Traumatic Event	Age Range	Gender (N) Male/ Female	EMDR Sessions (N)	Time of Post-Treatment Assessments	Primary Measures	EMDR Post-Treatment Results
											improvement between groups was not significant. Difference in treatment length between groups was significant ($p <$ 0.000) in favour of EMDR.
Ahmad et al (2007)	Sweden	Psychiatric Outpatient	Waiting List	17/16	Multiple	6-16 (M=10.0)	13/20	1-8	2 Months	DICA-IV PTSS-C	PTSS-C Total scores significantly lower than WL; $F(1, 32)=8.90$, $p<0.01$
de Roos et al (2011)	Netherlands	Psychiatric Outpatient	CBT	26/26	Single. Disaster (Exploded Fireworks Factory)	4-18 (M=10.1)	29/23	2-5	Immediate 3 Months	PTSD-RI CROPS PROPS	Both EMDR & CBT produced significant reduction in scores for all measures (all p-values <.001) with no significant difference between the groups. Treatment effects maintained at follow-up (all p-values <.001). Efficiency in favour of EMDR with treatment gains reached in fewer sessions ($t=2.16$, $df=36$, $p=.038$)

Study	Country	Setting	Type of Control	Participant (N) EMDR/ Control	Traumatic Event	Age Range	Gender (N) Male/ Female	EMDR Sessions (N)	Time of Post-Treatment Assessments	Primary Measures	EMDR Post-Treatment Results
Diehle et al (2015)	Netherlands	Psychiatric Outpatient	TF-CBT	25/23	Multiple	8-18 (M=12.9)	18/30	≤8	≥8 Weeks	CAPS-CA	CAPS-CA scores significantly reduced for both EMDR & TF-CBT by approximately 20 points (p values not reported) with a difference in favour of EMDR of 0.79 (95% ct – 13.4 TO 14.8) Difference in treatment length between groups was not significant.
de Roos et al (2017)	Netherlands	Psychiatric Outpatient	CBWT & Waiting List	43(EMDR)/ 42(CBWT)/ 18(WL)	Single (any)	8-18 (M=13.2)	44/59	≤6	Immediate 3 Months 12 Months	CRTI-R ADIS-C/P	Both EMDR & CBWT produced significant reduction in Total scores for CRTI-R child and parent versions (all p-values <.001). with no significant difference between the groups. Treatment effects maintained at follow-up (all p-values <.001). EMDR & CBWT did not differ for remission rates at post-treatment or follow-up, except at 12 month in favour of EMDR, based only on the ADIS-P (p=0.29).

Quality of Included Studies

Due to the relatively short period of time since the introduction of EMDR in clinical settings in the late 1980's, no date or language restrictions were placed upon the search strategies, reducing bias upon results. This resulted in studies being included over a seventeen year span (2001 to 2017).

The eight RCTs identified as meeting the inclusion and exclusion criteria were assessed for methodological quality by the author, with three of these of these (38%) blindly second rated by an independent second reviewer; a fellow student on the Doctorate in Forensic Psychology programme at the University of Nottingham.

Inter-rater Agreement

Platinum Standard (PS)

Of the sixty-six ratings (thirteen ratings per article x three articles x two raters) completed by the two raters, 24 (36%) were in disagreement; that is, 64% were in agreement; suggestive of moderate inter-rater agreement. In these cases, differences were identified by the two raters and were resolved through discussion, reaching consensus. Scores on the PS for each study ranged from 6.5 to 11, with higher

scores indicating higher quality. See Table 2 for the PS scores for each study and the scoring criteria.

Jadad Scale

Of the eighteen ratings (three ratings per article x three articles x two raters) completed by the two raters, four (22%) were in disagreement; that is, 78% were in agreement; suggestive of good-to-moderate inter-rater agreement. In cases of disagreement, differences were identified by the two raters and resolved through discussion reaching consensus. Scores on the Jadad Scale for each study ranged from 3 to 5, with higher scores indicating higher quality. See Table 3 for the Jadad Scale score for each study and the scoring criteria.

It was noted that there was a generally positive correlation between publication date and quality scores for both the Platinum Standard and Jadad Scale. This may be indicative of the quality of published research increasing, increasingly stringent publication standards, or a higher association of the more recent publications with these quality assessment criteria, particularly the Platinum Standard which has been developed specifically for EMDR studies.

Table 2. Platinum Standard (PS; Hertlein and Ricci, 2004) Scores for Included Studies.

Study	PS #1	PS #2	PS #3	PS #4	PS #5	PS #6	PS #7	PS #8	PS #9	PS #10	PS #11	PS #12	PS #13	Total PS Score
Rubin et al (2001)	0.5	1	0	0.5	1	0.5	0.5	0	0	0	1	0.5	1	6.5
Soberman et al (2002)	1	1	0.5	0	1	0.5	0.5	0	1	0	0.5	0.5	0	6.5
Chemtob et al (2002)	1	1	1	1	1	0.5	1	0	1	0	1	1	1	10.0
Jaberghaderi et al (2004)	0.5	1	0.5	0.5	0.5	0.5	0.5	0	1	0.5	1	0.5	1	8.0
Ahmad et al (2007)	1	1	1	0.5	1	0.5	0.5	0	1	0	1	1	1	9.5
de Roos et al (2011)	1	1	1	1	1	1	1	0	1	0	1	0.5	1	10.5
Diehle et al (2015)	1	1	1	0.5	0.5	1	0.5	0	1	0	1	0.5	1	9.0
de Roos et al (2017)	1	1	1	1	1	1	1	0	1	0	1	1	1	11

Please see Appendix B for a description of the PS scales and scoring criteria.

Table 3. Jadad Scale for Randomised Controlled Trials (Jadad et al. 1996).

1. Was the study described as randomised?" (this includes the use of words such as randomly, random, and randomisation)?
2. Was the study described as double-blind?"
3. Was there a description of withdrawals and drop outs?

Study	1. Randomisation	2. Blinding	3. An account of all patients	Total Score (max 5)
Rubin et al (2001)	1	1	1	3
Soberman et al (2002)	1	1	1	3
Chemtob et al (2002)	1	2	1	4
Jaberghaderi et al (2004)	2	2	1	5
Ahmad et al (2007)	1	2	1	4
de Roos et al (2011)	2	2	1	5
Diehle et al (2015)	2	2	1	5
de Roos et al (2017)	2	2	1	5

Please see Appendix C for a description of the Jadad scales and scoring guidance.

All studies applied the correct methodology and statistical analysis to report their clearly stated aims in addition to reporting all findings clearly. All authors reported sample sizes, ranging from *N*=14 (Jaberghaderi et al., 2004) to *N*=103 (de Roos et al., 2017), and each study provided clarity regarding the sample sizes utilised for different analyses. All studies reported information regarding response and/or attrition rates, with no significant differences reported between any treatment comparisons.

The importance of reviewing the statistical power of research was advocated by Cohen (1988). However, only two studies reported an a-priori power analysis (Diele et al. 2014; and de Roos et al. 2017) despite being recommended practice within current day research (American Psychological Association; APA, 2008).

Diagnostic/Screening and Outcome Measures

All reviewed studies included participants with PTSD or Partial PTSD diagnosis as assessed with various measures. Partial PTSD was defined by Diehle et al. (2015) as either fulfilling two of the three symptom clusters or one symptom present in each of the three symptom clusters. This definition is in line with Carlier and Gersons (1995), and Stein, Walker, Hazen, & Ford (1997). However, the range of participants diagnosed for

either PTSD or Partial PTSD ranged from 15% (Rubin et al. 2001), and 31% (Soberman et al. 2002) in the earlier studies, to 100% in the later studies (Chemtob et al. 2002; de Roos et al. 2017; Diehle et al. 2014; and Ahmad et al. 2007). Participants in the earlier studies were a recruited through referral from EMDR-trained therapists currently providing routine treatment, due to the belief that they may benefit from this additional treatment (Rubin et al. 2001), and boys in a residential care/day service with conduct problems (Soberman et al. 2002), whose primary diagnoses included Conduct Disorder (59%), Attention Deficit Hyperactive Disorder (17%), Learning Disability (14%), Substance Abuse (13%) and Oppositional /Defiant Disorder (ODD). Many of these may be considered co-morbid to a diagnosis of PTSD, however only 31% were labelled.

Jaberghaderi et al. (2004) only included girls who had been sexually abused in their study, and de Roos et al. (2011) included a specific sample of those young people experiencing disaster-related PTSD symptoms following the devastating explosion of a local fireworks factory.

Details of screening and primary measures used are described below.

All studies other than Rubin et al. (2001) described using screening and/or primary measures for child PTSD that were compliant with DSM-5 criteria.

The Child Report of Post-traumatic Symptoms (CROPS; Greenwald and Rubin, 1999)

The CROPS is a 26-item self-report questionnaire not referenced to a specific event, covering a broad spectrum of children's post-traumatic symptoms. Greenwald and Rubin (1999), and Greenwald, Rubin, Jurkovic, Wiedemann, Russell, O'Connor, Sarac, Morrell, & Weishaar (2002) have presented multiple studies indicating good internal consistency, test-retest reliability, criterion validity, convergent and discriminant validity, and sensitivity to change. Participants ages seven to seventeen in a variety of countries and settings including community samples, incarcerated youth, war refugees, and clinical populations.

The CROPS, together with PROPS (see below), was the primary measure most commonly applied, used in three of the reviewed studies (Soberman et al. 2002; Jaberghaderi et al. 2004; and de Roos et al. 2011).

The Parent Report of Post-traumatic Symptoms (PROPS, Greenwald and Rubin, 1999)

The PROPS is a 32-item parental companion measure to the CROPS, with similar validity for children ages seven to seventeen (Greenwald et al. 2002).

The Diagnostic Interview for Children and Adolescence (DICA-IV; Reich, Leacock, & Shanfeld; 1997)

Based on DSM-IV criteria, the DICA is a semi-structured, glossary-based interview developed for the identification of psychiatric disorders in those aged six to seventeen years old. The DICA shows good reliability and validity data across a range of settings, and is widely used in a number of countries including the USA and Candada (Reich, 2000). Ahmad et al. (2007) was the only study reviewed to employ the DICA as a measure.

Child Reaction Index (CRI; Pynoos, Frederick, Nader, Arroyo, Steinberg, Eth, Nunez, & Fairbank, 1987).

The CRI is a semi-structured interview for assessing post-trauma symptoms and PTSD in school-aged children (Frederick, 1985). Pynoos et al. (1987) report test-retest inter-item agreement over seven days as 94% with a kappa coefficient of .88. In line with the sample employed by

Chemtob et al. (2002), the CRI has previously been used to measure the impact of hurricanes on children (Vernberg, La Greca, Silverman, & Prinstein, 1996). Chemtob et al. (2002) was the only study reviewed to employ the CRI measure.

The Revised Children's Manifest Anxiety Scale (RCMAS, Reynolds and Richmond, 1985).

The RCMAS is a 37-item self-report instrument designed to assess the level and nature of anxiety in children and adolescents from 6 to 19 years of age, and appears to measure trait anxiety. The RCMAS yields a Total Anxiety score and three subscale scores; Physiological Anxiety, Worry-Oversensitivity, and Social Concerns/Concentration. The RCMAS scales have been shown to have good internal consistency, with Cronbach's α ranging from 0.78 to 0.85 (Reynolds and Richmond, 2000). Chemtob et al. (2002) was the only study reviewed to employ the RCMAS measure.

The Children's Depression Inventory (CDI, Kovacs, 1992).

The CDI is a 27-item self-report scale designed to measure depressive symptoms and is normed for children ages seven to seventeen. The scale yields a Total and five subscale scores; Negative Mood, Interpersonal Problems, Ineffectiveness, Anhedonia, and Negative Self-Esteem. The

CDI demonstrates adequate internal and test-retest reliability as well as good concurrent validity (Kovacs, 1992). The internal consistency of the CDI is reported to range between .71 and .89 (Cronbach's alpha: Weiss and Weisz, 1988). Chemtob et al. (2002) was the only study reviewed to employ the CDI measure.

The UCLA PTSD Reaction Index (PTSD-RI; Steinberg, Brymer, Decker, & Pynoos, 2004) for DSM-IV

The PTSD-RI is a psychiatric assessment tool used to assess symptoms of PTSD in children between the ages of seven and seventeen. The tool consists of three indexes: a children's index, an adolescent's index, and a parent index. Questions can differ among the indexes depending on the target age, however the indexes are identical in format. Reports on psychometric properties for the PTSD-RI have shown high test-retest reliability and validity, with no significant differences in scores between racial/ethnic groups (Steinberg, Brymer, Kim, Briggs, Ippen, Ostrowski, & Pynoos, 2013). Cronbach's α reliability coefficients have generally been in the range of .90, with test-retest reliability coefficients in the range of .84 (Steinberg et al. 2004). De Roos et al. (2011) was the only study reviewed to employ the PTSD-RI measure.

Impact of Events Scale-8 Items (IES-8; Horowitz, Wilner, & Alvarez, 1979)

The IES-8 is a used to measure avoidance and intrusion (post-traumatic stress) symptoms associated with a specific, identified past trauma. The scale has demonstrated construct validity and adequate reliability with children and adolescents (Dyregrov, Kuterovac, & Barath, 1996). A subset of eight items appears to identify children and adolescents with severe post-traumatic symptoms more efficiently than the full scale (Dyregrov and Yule, 1995). Soberman et al. (2002) was the only study reviewed to employ the IES-8.

The Post-Traumatic Stress Symptom Scale for Children (PTSS-C; Ahmad, Sundelin-Wahlsten, Arinell, Sofi, Qahar, & von Knorring, 2000)

PTSS-C scale has been developed to diagnose PTSD according to the DSM-IV criteria, to identify post-traumatic stress symptoms not specific for PTSD, and to assess severity of post-traumatic stress symptoms among children. It consists of 36 items. The PTSS-C has shown acceptable psychometric properties (Ahmad et al. 2000). Ahmad et al (2007) was the only included study to utilise the PTSS-C. The PTSS-C was administered in semi-structured interviews with the child and

the caregiver present, who supplemented information only when necessary.

Children's Responses to Trauma Inventory – Revised (CRTI-R; Alisic and Kleber, 2010)

The CRTI-R is a self-report and parental-report tool used for measuring post-traumatic stress reactions in children through 34 items across four subscales; Intrusion, Avoidance, Arousal, and Other Child Specific Reactions. Scores range from one to five, with higher scores indicating more symptomatology. A sum score on all items can be calculated as well as a probable PTSD classification according to the DSM-IV-TR algorithm (APA, 2000). Validation of the CRTI-R (Alsic and Kleber, 2010) with traumatised primary school children in the general population showed reliability of the subscales and total scale as good to excellent, and that the CRTI-R was valid when associated with other measures for post-traumatic stress and psychological well-being. During validation (Alsic and Kleber, 2010), Cronbach's alpha was established as .85 for the total scale. De Roos et al. (2017) was the only study reviewed to employ the CRTI-R measure.

DSM-IV PTSD diagnostic status assessed by the Anxiety Disorders Interview Schedule, Child and Parent Version (ADIS-C/P; Silverman and Albano, 1996)

ADIS-C/P is a semi-structured interview designed for children and adolescents aged between 6 and 17 years. DSM-IV anxiety symptoms are rated by the child and parent as either present ("yes") or absent ("no"). A further validation study (Silverman, Saavedra & Pina, 2001) demonstrated the ADIS-C/P to be reliable for deriving DSM-IV anxiety disorder symptoms and diagnoses in children. It was found to have excellent reliability in symptom scale scores for separation anxiety disorder, social phobia, specific phobia, and generalised anxiety disorder and good to excellent reliability for deriving combined diagnoses of these disorders, as well as using child-only and parent-only interview information. Other studies have shown moderate to high interrater-reliabilities for the diagnoses of the separate anxiety disorders using in the ADIS-C/P (e.g., Rapee, Barrett, Dadds, & Evans, 1994; kappa ranging from 0.59 to 0.82). De Roos et al. (2017) was the only study reviewed to employ the ADIS-C/P measures.

The Child Behaviour Checklist (CBCL; Achenbach, 1991)

The CBCL is a caregiver report form identifying problem behaviour in children aged between six and eighteen years.

The tool includes eights scales measuring; Aggressive Behaviour, Anxious/Depressed, Attention Problems, Rule-breaking Behaviour, Somatic Complaints, Social Problems, Thought Problems, and Withdrawn/Depressed. Research has indicated strong test-retest reliability and sound construct validity. Internal consistency Cronbach's α ranges from Good to Excellent depending on scale (Achenbach and Brown, 1991). The CBCL was not specifically designed to measure traumatic stress reactions. Rubin et al. (2001) was the only study reviewed to employ the CBCL measure, and this was the study's only described measure. Rubin et al. (2001) used the Child Behaviour Checklist (CBCL) to measure child-internalising problems (Depression and Anxiety, Withdrawal, and Somatic Complaints.

Clinician-Administered PTSD Scale for Children and Adolescents (CAPS-CA; Nader, Kriegler, Blake, Pynoos, Newman, & Weather, 1996).

CAPS-CA is a standardised 30-item clinical interview developed to assess the seventeen PTS symptoms for children age seven to seventeen in line with the DSM-IV standards. For each symptom, standardised questions and probes are provided. Questions target the onset and duration of symptoms, subjective distress, impact of symptoms on social

functioning, impairment in development, overall response validity, overall PTSD severity, and specifications for the dissociative subtype (depersonalisation and derealisation). Diehle, de Roos, Boer, & Lindauer (2013) demonstrated the CAPS-CA to have good psychometric properties (Cronbach's a's: 0.62–0.83; ICC for interrater reliability: 0.97–0.99). Diehle et al. (2015) was the only study reviewed to employ the CAPS-CA measure.

Kauai Recovery Inventory (KRI; Hamada, Kameoka, & Yanagida, 2003).

The KRI is a 24-item self-report scale derived from Frederick's Reaction Index (Frederick, 1985) which adapts that instrument for school-aged children, whilst incorporating the DSM-IV PTSD criteria. Children rate on a 3-point scale the frequency with which they experienced hurricane-related symptoms during the previous week. Hamada et al. (2003) report the KRI has adequate internal reliability (Cronbach's alpha =.84) and test-retest reliability (*r*=.77 over 28 days). Chemtob et al. (2002) were the only study reviewed to employ the KRI measure; used to identify participants with elevated scores during the initial screening process.

Secondary Measures

A range of secondary measures were used in addition to those already described by each study reviewed other than Rubin et al. (2001) and Chemtob et al. (2002). It is beyond the scope of this review to cover these secondary measures in detail.

It is widely accepted that the TSCC is the most commonly used assessment tool for trauma symptoms in children and adolescents in clinical settings (Elhai, Gray, Kashdan, & Franklin, 2005). It is of note, however, that none of the included studies employed the TSCC in their screening, primary, or secondary measures.

EMDR Fidelity

Treatment fidelity is a critical feature of controlled studies, both in general (Foa and Meadows, 1997), and specifically regarding EMDR (Maxfield and Hyer, 2002).

All therapists across each of the eight studies reviewed were adequately trained in the delivery of EMDR, and had varying degrees of prior experience using the technique, both within and across the studies.

Treatment fidelity was demonstrated through regular supervision and video recording/reviewing of EMDR sessions in four of the reviewed studies; Rubin et al. (2001); Chemtob et

al. (2002); Diehle et al. (2015); and de Roos et al. (2017). No independent assessment of fidelity through supervision or video recording sessions was available for the other four studies; Soberman et al. (2002); Jaberghaderi et al. (2004); Ahmad et al. (2007) and de Roos et al. (2011). A related limitation to three of these studies was the use of a single EMDR therapist, making it difficult to distinguish the effect of the therapist skills from the specific effect of the EMDR treatment (Soberman et al. 2002; Jaberghaderi et al. 2004; and de Roos et al. 2011.

The EMDR protocol employed across the studies involved interchangeable use of bilateral stimulation using eye movements, hand-tapping, shoulder tapping, auditory tones, and finger snapping. Age-appropriate modifications to the protocol were employed by de Roos et al. (2011, 2017) based on Greenwald (1999) and Tinker and Wilson (1999), and by Ahmad et al. (2007) based on Ahmad and Sundelin-Wahlsten (2007). Rubin et al. (2001) describe the therapists as deviating from the traditional EMDR protocol with "innovative" and "idiosyncratic" ways with each child, but no consistent model was followed. The other four studies did not describe any age modifications or deviations to the protocol. The number of EMDR sessions provided to participants across the studies ranged from one to eight There were different

numbers of sessions provided both within and across the studies reviewed, e.g. Ahmad et al.(2007) provided between one and eight, and de Roos et al. (2011) between two and five. There were differences in the way of reporting the number of sessions across studies and the rationale for the length of treatment, e.g. Rubin et al. (2001) provided a minimum of five sessions, but no further information is given, and Soberman et al. (2002) provided exactly three sessions for all participants, with no account of less/further individual treatment need.

Treatment Comparisons

Cognitive Behavioural Therapy (CBT)

Two studies reviewed used CBT as their comparison group (Jaberghaderi et al. 2004, and de Roos et al. 2011). CBT for trauma in children and adolescents is based on the principles of cognitive and learning theories; aiming to decrease negative child emotions and behaviours, and transform dysfunctional cognitions and attributions about the traumatic event (Saunders, Berliner & Hanson, 2004). There were different CBT protocols followed for the comparison groups in the two studies.

The Jaberghaderi et al. (2004) CBT procedure was based on Deblinger and Heflin (1996), with additional activities from

Camino (2000). Although the activities were standardised, they were tailored to the individual participants. The focus was on skill development (e.g. symptom management) and on exposure to the identified sexual abuse memory. In the CBT condition there was homework for every session (total approximately 10 to 15 hours), e.g. checklists, drawings, and listening to tapes of the exposure narrative. Homework in the EMDR condition was limited to drawing a "safe place" on one occasion between sessions early in treatment.

The de Roos et al. (2011) CBT procedure was exposure-based (originally "opvangprotocol"; Eland, de Roos, & Kleber, 2002), described by the authors as the predominant trauma treatment available to children in the Netherlands at the time of the study. The applicability of this CBT protocol had previously been examined in a feasibility study (n=47, age four to eighteen, single trauma) and was shown to be effective in reducing PTS reactions and behaviour problems (Eland, de Roos, & Kleber, 1999). The focus was on psychoeducation about trauma and its effects, repeated exposure to the trauma memory via the development of a detailed trauma narrative, cognitive restructuring, exploring and correcting undesired or unhelpful coping behaviour, and relapse prevention. There is no description of homework having been assigned to either treatment group in the study.

Trauma Focussed Cognitive Behavioural Therapy (TF-CBT)

One study reviewed used TF-CBT as treatment for the comparison group (Diehle et al. 2015). Trauma-focussed CBT has proved to be efficacious for children with a sexual trauma, but also for children with other traumas (Berliner, 2005; Cohen and Mannarino, 2008). TF-CBT protocol was followed as developed by Cohen, Mannarino, & Deblinger (2008), however (in consultation with Mannarino), the authors adapted the original twelve session version of the protocol and covered the modules within eight sessions. The focus included psychoeducation; relaxation; affective expression and regulation; cognitive coping; gradual exposure by creating the child's trauma narrative; parent management skills; conjoint child–parent session; and enhancing future safety and development. There is no description of homework having been assigned to either treatment group in the study.

Cognitive Behavioural Writing Therapy (CBWT)

One study reviewed used CBWT treatment for their comparison group (de Roos et al. 2017). CBWT is a form of trauma-focussed CBT, and protocol was followed as devised by Van der Oord, Lucassen, Van Emmerik, & Emmelkamp (2010). Van-der Oord et al. (2010) adapted a brief, child-friendly version of the adult, internet-based writing therapy for PTSD (INTERAPY; Lange et al. 2003). CBWT involves exposure to the trauma memory and restructuring of trauma-related beliefs through writing and updating of the trauma memory on a computer with the support of a therapist. CBWT can be brief because, like EMDR, it focuses entirely on exposure and reprocessing of the trauma memory, and does not include forms of coping skills training or parent-focussed sessions, as with TF-CBT. There is no description of homework having been assigned to either treatment group in the study.

Treatment as Usual (TAU)

Two of the studies reviewed used TAU for their comparison groups (Rubin et al. 2001, and Soberman et al. 2002), with the EMDR treatment being provided in addition to TAU for the experimental group in both studies.

Most of the children in each treatment condition for the Rubin et al. (2001) study received a combination of individual play therapy, group therapy, and family therapy. No specific details of these therapies are provided by the authors. Other than the fact that all experimental children (and no controls) also received EMDR, the difference in treatment packages between the two groups was not significant.

All participants in the Soberman et al. (2002) study were given the same milieu treatment, including weekly individual psychotherapy, weekly group psychotherapy, special education services, a behaviour modification point-system, and, on an individual basis as needed, medication and/or psychoeducational parent/family counselling. The only differential treatment between groups was the addition of three EMDR sessions for the experimental group.

Waiting List

Three of the studies reviewed used WL as their comparison group; Chemtob et al. (2002); Ahmad et al. (2007); and de Roos et al. (2017). De Roos et al (2017) were the only study reviewed to use two comparison groups; CBWT and WL.

Chemtob et al. (2002) randomly assigned approximately half the participants to a WL for the same EMDR treatment until the first group's treatment was completed.

Ahmad et al. (2007) randomly assigned approximately half the participants to a WL for a period of two months to allow for treatment completion in the EMDR group. The WL group thereafter received the same EMDR treatment.

De Roos et al. (2017) chose an allocation ratio to ensure a sufficient sample size in the WL group for meaningful statistical comparisons with EMDR and CBWT, and to withhold immediate treatment from as few participants as possible for ethical reasons. This selection process resulted in the WL group numbers being less than half (N=18) of those in the EMDR (N=43) and CBWT (N=42) groups. After a period of six weeks WL, participants were re randomised to EMDR or CBWT in the ratio of one-to-one.

Outcomes

The Effects of EMDR

Chemtob et al. (2002) reported that EMDR treatment for school children in Hawaii affected by natural disaster (hurricane) resulted in substantial reductions in CRI scores and in significant, though more modest, reductions in RCMAS and CDI scores for both the initial and WL EMDR treatment groups. These gains were maintained at six-month follow-up for both groups.

Jaberghaderi et al. (2004) reported that EMDR treatment for female school children victims of sexual abuse resulted in significant reductions in scores on both the CROPS and PROPS.

Ahmad et al. (2007) reported that EMDR treatment for participants in a psychiatric outpatient setting resulted in significantly lower post-treatment scores on the total PTSS-C, the PTSD-related symptom scale, and the subscales of Re-experiencing and Avoidance, than for the WLC. The improvement in Re-experiencing symptoms proved to be the most significant between-group difference at two-month follow-up.

De Roos et al. (2011) reported that EMDR treatment for participants in a psychiatric outpatient clinic affected by disaster (firework factory explosion) resulted in significant reductions in scores on the PTSD-RI, CROPS and PROPS.

De Roos et al. (2017) reported that EMDR treatment for participants in a psychiatric outpatient setting with single trauma resulted in significant reductions in scores on both the CRTI-R and ADIS-C/P compared to the WLC. These gains were maintained at both three-month and twelve-month follow-up.

The Comparative Effects of EMDR

CBT

Jaberghaderi et al. (2004) reported that compared to pre-treatment scores on the CROPS, the EMDR group improved significantly whereas the CBT group did not. However, the difference in improvement between groups was not significant. Scores on the PROPS improved significantly for both groups, and the difference in improvement between groups was not significant. Treatment efficiency for the two groups was calculated by dividing change scores by number of sessions and EMDR was significantly more efficient than CBT, with large effect sizes on each outcome.

De Roos et al. (2011) reported that both EMDR and CBT treatment produced significant reductions on the PTSD-RI, CROPS, and PROPS, and results were maintained at three month follow-up. Treatment gains of EMDR were reached in fewer sessions than for the CBT treatment group.

TF-CBT

Diehle et al. (2015) reported that both EMDR and TF-CBT treatment produced significant reductions on the CAPS-CA, with a non-significant trend in favour of EMDR. With respect to treatment length, Diehle et al. (2015) observed slightly

more efficiency for EMDR over TF-CBT, although the difference was not significant.

CBWT

De Roos et al. (2017) reported that relative to WL, both EMDR and CBWT treatments yielded significant reductions on the CRTI-R and ADIS-C/P at post-treatment. Gains were attained with significantly less therapist contact time for EMDR than CBWT.

TAU

Soberman et al. (2002) reported no significant differences between the EMDR treatment group and the TAU group for all-male participants in a residential/day service setting as measured by the IES-8, CROPS and PROPS. Although not statistically significant ($p = .964$), the IES-8 went from clinical to non-clinical levels in both groups, with a trend favouring EMDR at two-month follow-up.

Rubin et al. (2001) reported no significant difference for participants in the child guidance centre (psychiatric outpatients) as measured by the CBCL between the EMDR treatment group and the TAU group.

No significant differences in the number of drop-out patients were detected between the EMDR and control groups across the eight studies reviewed.

Discussion

Exposure to Adverse Childhood Experiences (ACEs), including abuse, neglect, household dysfunction, and other early childhood traumas, have been associated with negative health outcomes across the life span (Felitti et al. 1998). Effective intervention has the powerful potential to arrest the pathway between early adversity and negative health outcomes, improving the health and wellbeing of children and adolescents, (Burke Harris, Silverio Marques, Oh, Bucci, & Cloutier, 2017). Effective prevention, early screening through assessment, intervention and moderation of the effects of childhood trauma are central to reducing demands on health and social care services (Bellis et al, 2017).

In this review, the countries represented in the evidence include the Netherlands, the USA, Sweden, and Iran. The studies crossed three settings; psychiatric outpatient clinics, schools, and residential/day care.

Research involving the effects of EMDR in reducing post-traumatic symptoms for children and adolescents is still in its infancy. The results of this systematic review suggest promising potential for the technique, with comparable gains to CBT (Jaberghaderi et al. 2004; de Roos et al. 2011), TF-CBT (Diehle et al. 2015), and CBWT (de Roos et al. 2017) that

were maintained at periods of follow-up between two and twelve months. Further, the results show that youth treated with EMDR present more significant reduction of their trauma-associated symptoms as compared to those in wait-list conditions (Chemtob et al. 2002; Ahmad et al. 2017; de Roos et al. 2017). These findings are in line with those of similarly themed meta-analyses (Rodenberg et al. 2009; Moreno-Alcázar et al. 2017).

The results of the two earliest RCTs included in this review (Rubin et al. 2001, and Soberman et al. 2002) suggest no incremental efficiency for EMDR in addition to the treatment as usual regime within a psychiatric outpatient or residential/day care provision. However with such a wide-ranging treatment milieu across both studies, including various combinations of psychotherapy, play therapy, group therapy, family therapy, and medication, it is difficult to draw clear conclusions regarding the effect of EMDR as measured by these studies.

In terms of cost effectiveness, EMDR shows favourable efficiency in comparison to CBT (Jaberghaderi et al. 2004, and de Roos et al. 2011) and CBWT (de Roos et al. 2017), with equivalent gains attained in significantly less therapist contact time. Similarly, EMDR shows a favourable, though non-

significant, trend for efficiency in comparison to TF-CBT (Diehle, 2015). The implication is that EMDR has the potential advantage over CBT and CBT-related therapies, given its equivalent treatment effect that requires fewer resources over a shorter period of time.

Limitations

Several limitations have to be taken into account before translating these results into clinical settings. The limited number of studies included in this systematic review might have prevented the detection of some effects, such as the reduction of symptoms co-morbid to PTSD. The inclusion criteria was RCT only and discarded other types such as non-randomised, observational or case studies, which reduced the potential narrative on the effects of EMDR on youth, but avoided possible biases. Additionally, the studies included in the review used different settings, populations, control conditions, trauma exposures, outcome measures, and follow-up procedures; reflecting the heterogeneity of this field. Also, the number of EMDR sessions that participants received in some studies was relatively low, for instance youths only received three sessions in the study performed by Soberman et al. (2002) regardless of treatment need. This could be insufficient when considering the eight phases of the standard

EMDR protocol and the complexity of trauma-associated and co-morbid symptoms. The highly heterogeneous nature of these studies makes interpretation and the drawing of conclusions a significant challenge.

Recommendations

The average age of children included in the primary studies was 11.2 years, with most children being over the age of 8 years. Studies on younger children are lacking and should therefore be one focus of future research.

It has been suggested that up to twenty sessions of EMDR may be needed to achieve lasting improvement beyond PTSD symptom reduction (Brown and Shapiro, 2006), depending on the extent and complexity of the trauma, and the individual's set of protective and risk factors. However, Rodenburg et al. (2009) found that only 3.5 sessions on average achieved better treatment outcomes for youths, and in the present systematic review, Scheck et al. (1998) reported some of the most consistent significant improvements with only two sessions. The lack of consensus on the number of EMDR sessions required for children and adolescents who have experienced trauma should be a focus of future studies.

The use of standardised instruments measuring the PTSD symptoms of young people, such as the TSCC (Briere, 1996),

and larger representative samples would be helpful to obtain suitable data for future comparison studies and meta-analyses.

Consistent use of an evaluative tool for readers to assess the validity, limitations, and potential generalisability of RCTs exploring the effects of EMDR would be beneficial. The Platinum Standard (Hertlein and Ricci, 2004) may meet this need.

Conclusion

There is growing evidence to support the clinical efficacy of EMDR for reducing symptoms of PTSD in children and adolescents. This evidence is also suggestive of a promising efficiency for EMDR over CBT therapies, with a trend for similar gains over a shorter period of treatment.

However, quality research about EMDR is still in its infancy and there is a lack of homogeneity across the small number of RCTs to date, with variances between study design, interventions, control conditions (including variations of CBT), sample sizes, populations, outcome measures, and follow-up procedures. This lack of homogeneity makes the synthesis of findings across the studies problematic, and ultimately reduces the impact of conclusions derived from the evidence.

Further RCTs are needed to evaluate the efficacy of EMDR in comparison with other psychological interventions, particularly CBT and related therapies such as TF-CBT and CBWT.

Chapter Three

Psychometric Critique of the Trauma Symptom Checklist for Children (TSCC)

The previous chapter highlighted the challenge presented in synthesising quantitative data from a diverse range of measures across studies. The use of standardised instruments measuring trauma symptoms in youth was recommended in order to draw more meaningful comparisons of effectiveness across different treatment modalities.

The TSCC is the most commonly used assessment tool for trauma symptoms in children and adolescents in clinical settings (Elhai et al, 2005), and it is considered quick and easy to use (e.g. Nader, 1997). It is therefore noteworthy and surprising that none of the included studies in the previous chapter employed the TSCC in their screening as a primary nor secondary measure.

The TSCC is the only available measure of trauma symptoms in young people which includes scales to identify over, and under-reporting of trauma symptoms (Chung, 2014). Additionally, it has been standardised in both clinical and non-

clinical populations, and it has been used in several studies as a measure of trauma symptoms (e.g. Bal, Crombez, Van Oost, & Debourdeaudhuij, 2003; Bal, Van Oost, Debourdeaudhuij, & Crombez, 2003; Brady & Caraway, 2002; Johnson, Kotch, Catellier, Shaw, Lewis, Loeb, Rosado, & Rodrigues; 2000; Kolko, Hurlburt, Zhang, Barth, Leslie, & Burns, 2010; Shaw, Lewis, Loeb, Rosado, & Rodrigues, 2001; Winsor, Dufort, Hunter, & Amaya-Jackson, 2002), and in treatment outcome studies (e.g. Cohen, Mannarino, & Knudsen, 2005; Lanktree and Briere, 1995; Nolan, Carr, Fitzpatrick, O'Flaherty, Keary, Turner, O'Shea, Smyth, & Tobin, 2002).

The previous chapter highlighted that future RCTs considering the effectiveness of EMDR with young people would benefit from the use more robust and consistent measures of trauma symptoms, and the TSCC would arguably meet this need. Indeed, it is unclear why this has not been previously been the case. The following chapter provides a psychometric critique of the TSCC.

Abstract

Background: This critical appraisal explores the reliability and validity of the Trauma Symptom Checklist for Children (TSCC; Briere, 1996). The TSCC is widely used in clinical settings to assess PTSD symptoms in youth following traumatic events.

Aims: The aim of this critique was to review the relevance, validity, reliability, and applications of the TSCC.

Results: The TSCC meets scientific criteria for a psychometric test, including those of test construction, and demonstrates robust properties, reliability, and validity across a range of cross-cultural and clinical settings. Limitations of the TSCC and future research are discussed.

Conclusion: The TSCC is a useful tool for psychological assessment and can assist health and social care professionals in treatment planning and symptom monitoring of childhood trauma related symptoms. The brevity of the TSCC and the inclusion of important questions pertaining to sexual concerns contribute to its popularity in clinical and research settings.

Introduction

It is widely accepted that the Trauma Symptom Checklist for Children (TSCC; Briere, 1996) is the most commonly used assessment tool for trauma in children and adolescents in clinical settings (Elhai et al, 2005). The author has over a decade of experience using the TSCC with children and adolescents in residential care settings, foster care placements, and schools. The tool has proven to be both practical in terms of its ease of administration, scoring and interpretation, and useful with regard to informing case formulation and symptom monitoring. This review examines the TSCC in terms of its scientific properties, its applicability to the assessment of trauma in young people, and its research uses.

Trauma is defined by DSM-V as exposure to an extreme traumatic stressor involving direct personal experience of an event that involves actual or threatened death or serious injury or other threat to one's physical integrity; or witnessing an event that involves death, injury, or threat to the physical integrity of another person (American Psychiatric Association, 2013).

Tool Overview and Characteristics

The TSCC (Briere, 1996) is a self-report measure of posttraumatic distress and related psychological symptomatology, intended for use in the evaluation of children and adolescents (aged 8 to 16 years old) who have experienced traumatic events. Children generally have a shorter attention span than adults, especially those who have been psychologically traumatised (e.g., Lipschitz, Morgan & Southwick, 2002). Appropriately, the TSCC consists of a relatively small number of trauma-responsive items. The various scales of the TSCC assess a wide range of psychological impacts. There are 54 items (See Appendix F) that yield two validity scales (Underresponse and Hyperresponse); six clinical scales (Anxiety, Depression, Anger, Posttraumatic Stress, Dissociation [with two subscales; Fantasy and Overt], and Sexual Concerns [with two subscales; Pre-occupation and Distress]); and eight critical items that may suggest problems or issues that require immediate attention, e.g. Wanting to kill myself. See Appendix G for a description and interpretation of the scales. For each trauma-responsive item on the TSCC the respondent rates their experience of frequency from 0= "Never" to 3= "Almost all of the time". The TSCC can be administered individually or to groups and takes approximately 15 - 20 minutes to complete.

The normative data is based on a sample of 3008 children from three non-clinical samples (2786 school children of urban and suburban locations and 222 children who were undergoing routine medical examinations or treatments for minor medical complaints, all in the US). The children were from different racial and socioeconomic backgrounds with a fair representation of gender (53 % female), aged eight to sixteen years old.

An important step during the interpretation of the TSCC is close examination of each of the eight critical items along with their frequency of endorsement in the normative sample. These items, which examine potential self-injury, suicidal ideation, desire to harm others, expectations of sexual maltreatment, involvement in fights, fear of men, fear of women and fear of being killed, suggest problems or issues that require more immediate clinical attention. The manual recommends further enquiry for non-zero responses to a critical items regarding the level and meaning of the critical response (Briere, 1996).

Psychological assessment is the area of psychology committed to examining and analysing behaviour and/or psychological characteristics by means of constructing, administering, scoring and interpreting measurement instruments (Anastasi

and Urbino, 1996). A good psychological instrument should be both reliable and valid, with validity normally considered to be the gauge of the utility of a test (Anastasi and Urbino, 1996).

Kline (1986) states that psychometrics should ideally be designed using ratio scales, with a meaningful zero point where possible. Where this is not possible, interval scales are considered the next best option. Brown (1976) highlights that most psychometric instruments do use interval scales and produce useful results when subjected to statistical analysis.

Reliability

As reported in the TSCC user manual (Briere, 1996), reliability analysis of the TSCC scales in the normative sample demonstrated high internal consistency for 5 out of the 6 clinical scales (α=.82 to .89). The remaining clinical scale, Sexual Concerns (SC), was moderately reliable (α = .77). The 4 clinical subscales varied in reliability, with Dissociation – Overt (DIS-O) and Sexual Concerns – Preoccupation (SC-P) having relatively high internal consistency (α=.81 in each instance), and the shorter Dissociation – Fantasy (DIS-F) and Sexual Concerns – Distress (SC-D) scales being somewhat less reliable (α=.58 and .64, respectively). There were adequate correlations between scales ranging from r=.19 to

r=.96. According to Kline (1986), internal consistency with Cronbach's alpha of 0.90 and above is excellent, 0.70–0.90 is good, 0.60–0.70 is acceptable, 0.50–0.60 is poor and below 0.50 is unacceptable.

The 54 checklist items have been included in several studies of child abuse impacts (e.g., Friedrich, 1991; Elliot and Briere, 1994; Lanktree and Briere, 1995), where reliability and validity analyses suggested no further need for scale refinement (Briere, 1996). Following determination of the psychometric quality of the TSCC, two validity scales were derived from existing TSCC items; Underresponding (UND) and Hyperresponding (HYP). The two validity scales had alpha coefficients of .85 and .66 respectively. See Appendix G for a description and interpretation of the scales.

Validity

The TSCC has been standardised in both clinical and non-clinical populations, and represents broad-based, multi-trait, self-report questionnaires with both abuse specific (e.g. Posttraumatic stress, Sexual Concerns, and Dissociation) and generic (e.g., Depression, Anger, and Anxiety) subscales. The TSCC was the only measure for trauma symptoms reviewed by Nilsson et al (2008) found to include scales to identify over and under reporting of traumatic symptoms.

Psychometric data regarding the validity scales of the TSCC (Underresponse and Hyperresponse) is limited (Fricker and Smith, 2001), despite their acceptable alpha coefficients. Fricker and Smith (2001) highlight that although the addition of validity scales to the TSCC increase the potential of the instrument to provide clinically important information, the methods by which the scales were developed differ from those typically used in the construction of such scales. The validity scales were derived actuarially from existing items after the clinical scales had been shown to have acceptable psychometric properties. The Underresponse scale was constructed from the TSCC items that were least likely to have received a score of "never" in the normative sample, and the Hyperresponse scale was formed so that no more than two items were taken from any given scale, and where each item was endorsed with an "almost all the time" in the normative sample by fewer than 5% of the normative sample.

Fricker and Smith (2001) evaluated both the TSCC's comparative sensitivity to trauma related symptoms and the instrument's validity scales through comparison with the Personality Inventory for Youth (PIY; Lachar and Gruber, 1995). The PIY was selected as the comparison because it is a multi-dimensional, self-report measure of general child psychopathology with good psychometric properties, and

includes validity scales developed independently of the clinical scales, specifically created for the purpose of evaluating possible response biases. The PIY has nine clinical scales that measure an array of adaptive behaviours and areas of potential strength and weakness: Cognitive Impairment, Impulsivity/Distractibility, Delinquency, Family Dysfunction, Reality Distortion, Somatic Concerns, Psychological Discomfort, Social Withdrawal, and Social Skill Deficits. In addition, the PIY contains four validity scales: Validity, Inconsistency, Dissimulation, and Defensiveness. Fricker and Smith (2001) suggest that the PIY Dissimulation and Defensiveness scales are most closely related to the Hyperresponse and Underresponse scales of the TSCC, respectively. They found moderate positive correlations between the TSCC and PIY scales that measure a defensive response set (Underresponse and Defensiveness, respectively), as well as the TSCC and PIY scales that measure an exaggerated response set (Hyperresponse and Dissimulation, respectively). These correlational analyses provide support for the convergent validity of the TSCC validity scales. These results suggest that the TSCC validity scales appear to function as they were designed. However, Fricker and Smith (2001) caution that the TSCC and PIY validity scales may be measuring different constructs, with the

PIY validity scales identifying more cases of defensiveness and exaggeration than did the TSCC.

Butcher, Kretschmar, Lin, Flannery, & Singer (2014) highlight a lack of empirical research on the TSCC validity scales. They examined the prevalence of cases identified by the validity scales, and the analytical impact. Their review of studies that present data on the TSCC showed the majority do not mention the validity scales included in the measure or how the cases were handled. Although the TSCC manual (Briere, 1996) recommends the removal of cases identified by the validity scales, it is often unclear whether studies have indeed removed invalid responses from their sample. The findings of Butcher et al (2014) were consistent with previous literature where 10–35% of youth across different samples were identified as being underresponders (Carter, Kaye, George, & King, 2003; Fricker and Smith, 2001; McCart, Davies, Harris, Wincek, Calhoun & Melzer-Lange, 2005; Ostler, Bahar and Jessee, 2010).

If the underresponding scale is indeed effective in detecting the minimisation of symptoms, this provides statistical evidence for the need to remove underresponders from regression models (Butcher et al, 2014). The numbers of hyperresponders in studies employing the TSCC are typically

too low to explore in a similarly analytical way.

Adaptations of the TSCC

Clark and Watson (1995) outline the importance of the language used in developing psychometric scales being unpretentious, upfront, suitable, simple in nature, and suitable for the comprehension level of the target population. There are two alternative versions of the TSCC for different populations. Firstly, the Trauma Symptom Checklist for Children–Alternative (TSCC-A; Briere, 1996), which is identical to the TSCC but with the ten Sexual Concerns scale items removed for situations where these may be irrelevant e.g. assessment of trauma following a natural disaster. In the interests of more complete evaluation, the full TSCC is recommended over the TSCC-A unless there are factors that preclude its use (Briere, 1996). Secondly, the Trauma Symptom Checklist for Young Children (TSCYC; Briere, 1999) which is a 90-item caretaker-report measure that can be used to assess trauma symptoms in children from ages 3 to 12. Caretakers rate each symptom on a 4-point scale [from 1 (not at all) to 4 (very often)] according to how often it has occurred in the previous month. Unlike other parent/caretaker report measures, the TSCYC contains specific scales to ascertain the validity of caretaker reports and

evaluates a range of post-traumatic symptoms. In addition, upon the prospective completion of normative studies, the TSCYC will allow for comparison of a given child's caretaker-reported symptoms in a given area against a large, representative sample of caretaker reports from the general population (Briere, Johnson, Bissada, Damon, Crouch &, Gil, 2001).

Caretaker report measures include the potential difficulties of intentional or inadvertent misreporting of the child's psychological status (Briere et al, 2001). To compensate, the TSCYC includes assessment of the caretaker's rating style and their familiarity with the child; two validity scales that assess potential over-report/under-report of the child's symptoms, and an item that asks "on average, how many hours do you spend in the same place (for example, at home) with him or her each week, not counting when he or she is asleep?" which is rated on a scale from 1 (0–1 hours) to 7 (over 60 hours). On review of the reliability of the TSCYC and its association with abuse exposure in a multi-site study, Briere et al (2001) demonstrate reasonable psychometric characteristics, and correlations as expected with various types of trauma exposure. Subject to continued validation and the development of general population norms, Briere et al (2001) encourage the use of the TSCYC as a clinical measure.

Clinical Application

The Adverse Childhood Experiences (ACEs; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998) framework provides an explanatory model for the link between traumatic experiences in childhood and negative outcomes in later life. Research on ACEs has identified a correlation between exposure to ACEs and premature mortality (e.g. Kelly-Irving, Lepage, Dedieu, Bartley, Blane, Grosclaude, Lang & Delpierre, 2013). People with experience of six or more ACEs have on average a 20 year lower life expectancy than those with no ACEs (Brown, Anda, Tiemeier, Felitti, Edwards, Croft & Giles, 2009). Bellis et al (2017) show ACEs related higher usage of healthcare services as evident from 18 years of age and continued throughout adult life. The development of trauma-informed health and social care services are key to reducing health harming behaviours. It follows that prevention, early screening through assessment, intervention and moderation of the effects of childhood trauma is central to reducing health care service demand in the future.

Balaban (2006) reviews the use of validated psychological assessment scales (including the TSCC) as post-traumatic screening and research instruments with children following disasters and emergencies. The TSCC has not yet been used

in disaster settings and therefore may not be the obvious first choice of an emergency PTSD assessment instrument. However, the TSCC is the only PTSD assessment suitable for use in post-emergency settings that has been specifically designed to evaluate children's responses to sexual abuse. Balaban (2006) therefore suggests that the instrument may be usefully applied in the assessment of children and adolescents following emergencies where rape and sexual trauma are relevant.

Fricker and Smith (2001) demonstrated the TSCC to be more sensitive than the PIY to the wide variability in level of distress among sexually abused children. The TSCC is better able to capture the heterogeneity of distress, whereas on the PIY, sexually abused children with PTSD appeared more homogeneous. The heterogeneity in type of distress was especially evident in the TSCC Depression and Anger scales (Fricker and Smith, 2001). These results support the use of the TSCC in outpatient and inpatient settings with sexually abused children.

In a preliminary study, Lobo, Brunnet, Ecker, Schaefer, Arteche, & Kristensen (2015) demonstrated that the TSCC is reliable and showed evidence of adequate internal validity in a cross-cultural adaptation with Brazilian children (α=.64 to

.85). Lobo et al (2015) highlight several other studies that demonstrate adequate internal consistency and validity evidence across different populations; Sadowski and Friedrich (2000) in psychiatrically hospitalized adolescents; Crouch, Smith, Ezzell, & Saunders (1999) among sexually abused children; Nilsson, Wadsby, & Svedin (2008) among Swedish children, and Li, Fang, Stanton, Zhao, Lin, Zhao, & Chen (2009) among children affected by HIV/AIDS in China.

Nilsson et al (2008) show that a translation of the TSCC into Swedish was readily comprehensible for a wide age range and maintained its same robust psychometric properties (e.g., factor structure, validity) when applied to a different culture. Nilsson et al (2008) review research highlighting the need for specific instruments to identify trauma symptoms, and suggest that standard or generic assessments of distress are not adequate to identify the symptoms of experienced trauma; particularly for young people who have experienced sexual abuse (e.g. Fricker and Smith, 2001; Friedrich, 2001). They highlight that most measures developed for use with traumatised young people have focused on specific types of trauma, e.g. sexual trauma/sexual problems; the Children's Impact of Traumatic Events Scale (CITES-R) (Wolfe, 1996; Wolfe, Gentile, Michienzi, Sas, & Wolfe, 1991), the Child Sexual Behaviour Inventory (CBSI) (Friedrich, 1997), and the

Sexual Abuse Fear Evaluation (SAFE) (Wolfe and Wolfe, 1988).

Sadowski and Friedrich (2000) compare several assessment instruments of circumscribed post-traumatic symptoms against the TSCC, including the Child Dissociative Checklist (CDC; Putnam, 1990), CITES-R, CSBI, and SAFE. They noted that these measures typically assess relatively narrow dimensions, in contrast to the TSCC, which provides a multi-trait measure of post-traumatic symptoms by comparison.

Sadowski and Friedrich (2000) measured convergent validity for the TSCC in a psychiatric population against several other measures; Beck Depression Inventory (BDI; Beck and Steer, 1987), Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1983), Adolescent-Dissociative Experiences Scale (A-DES; Armstrong, Putnam & Carlson, 1990), Minnesota Multiphasic Personality Inventory (MMPI; Hathaway and McKinley, 1940), Rorschach (Exner, 1990), and the Family Environment Scale (FES; Moos and Moos, 1976). They found that independent measures of depression, anxiety, anger and dissociation typically correlated significantly with the relevant TSCC scales. These findings suggest that the TSCC is a valid measure of distress for a psychiatric sample.

Timely and well-organised psychological screening of children, using valid and reliable methods, should be an essential component of a response to disasters and emergencies (Balaban 2006). Effective screening helps to identify children who have persistent trauma-related symptoms and to direct resources towards at-risk paediatric populations (NACCT, 2003).

Lobo et al (2015) demonstrated strong evidence of convergent validity of the TSCC clinical scales by correlations with scales on the self-report Children's Depression Inventory (CDI; Kovacs, 2003) and parent-report Child Behaviour Checklist (CBCL; Achenbach, 1991) scores. The CDI total score was significantly correlated with all TSCC scales except Overt Dissociation, Fantasy Dissociation and Sexual Distress. The TSCC's Anger and Depression clinical scales were significantly correlated with CBCL subscales. Anger was the only TSCC scale that significant correlated with CBCL parent-report scores, whereas in the original TSCC normative study (Briere, 1996), scales correlated best with CBCL youth-report and less with CBCL parent-report measures. The TSCC Depression scale was significantly correlated with the CBCL Externalising problems and Rule-Breaking Behaviour scales. Lobo et al (2015 highlight research suggesting that externalising problems tend to co-occur with internalising problems (Nock,

Kazdin, Hiripi, & Kessler, 2007; Vaillancourt, Brittain, McDougall, & Duku, 2013; Zarling, Taber-Thomas, Murray, Knuston, Lawrence, Valles, & Bank, 2013). In support of this subsector, the TSCC scales of Anger, Anxiety, Depression, Posttraumatic stress, Dissociation and Sexual Concerns were significantly correlated with the CDI, in line with the TSCC normative study (Briere 1996). Sadowski and Friedrich (2000) also demonstrated the TSCC scales of Depression and Anxiety strongly correlated with the CDI self-report depression measure. In line with the normative TSCC sample (Briere, 1996) and later studies (e.g. Li et al. 2009; Nilsson et al. 2008), Lobo et al (2015) observed significant age and sex variables, with younger children scoring higher than older children on Dissociation and Sexual Concerns subscales. Additionally, girls tended to score higher than boys on most TSCC clinical scales, with Anxiety presenting a significant effect size.

The Aggression Questionnaire (AQ; Buss and Warren, 2000) is a self-report measure of aggression intended for evaluation of an individual's (aged 9 to 88) aggressive responses, and ability to channel those responses in a safe and constructive manner. The TSCC and AQ share Anger as a common clinical scale. The Anger subscale of the TSCC is designed to indicate the extent of angry thoughts, feelings and behaviours

reported by the child (Briere et al., 1996). The Anger subscale of the AQ includes seven items that describe aspects of anger related to arousal and sense of control (Buss and Perry, 1991). Drysdale (2018, unpublished thesis) demonstrated a positive correlation between the Anger scale of the TSCC and the Anger scale of the AQ, thus demonstrating the scales as a consistent measure of anger.

Research application

The TSCC has been used in several studies as a measure of trauma symptoms (e.g. Bal, Crombez, Van Oost, & Debourdeaudhuij, 2003; Bal, Van Oost, Debourdeaudhuij, & Crombez, 2003; Brady and Caraway, 2002; Johnson, Kotch, Catellier, Winsor, Dufort, Hunter, & Amaya-Jackson, 2002; Kolko, Hurlburt, Zhang, Barth, Leslie, & Burns, 2010; Shaw, Lewis, Loeb, Rosado, & Rodrigues, 2000; Shaw, Lewis, Loeb, Rosado, & Rodrigues, 2001) and in treatment outcome studies (e.g. Cohen, Mannarino, & Knudsen, 2005; Lanktree and Briere, 1995; Nolan, Carr, Fitzpatrick, O'Flaherty, Keary, Turner, O'Shea, Smyth, & Tobin, 2002).

Nilsson et al (2008) highlight that a survey of traumatic stress professionals (Members of the International Society for Traumatic Stress Studies) evidenced the TSCC as the most widely used self-report scale for the measurement of trauma

symptoms among children and adolescents (Elhai, Gray, Kashdan, & Franklin, 2005), is considered quick and easy (Balaban, 2006; Nader, 1997), and well suited to be a screening instrument in clinical practice.

Research into children's psychological responses to disasters and emergencies is still in its infancy (Balaban, 2006). Balaban (2006) highlights that many of the published studies on children's psychological responses to disasters and trauma are contradictory, with basic questions, regarding e.g., age and gender differences, still to be resolved (Yule, Bolton, Udwin, Boyle, O'Ryan, & Nurrish , 2000). The TSCC would lend itself well to this field of research.

Given the robust psychometric properties, reliability, and validity of the TSCC as already discussed, it follows that information gathered using the TSCC can provide useful data for informing programme evaluations, treatment planning and longitudinal studies to track patterns of development of post-traumatic effects in children.

Limitations

For researchers examining the TSCC at the aggregate level, the findings of Butcher et al (2014) suggest that retaining invalid cases (identified using the Underresponding/

Overresponding TSCC scales) in a regression model could skew their results and increase the chances of a Type II error. Although removing 10–35% of a sample may negatively affect the analytical power of the sample, data from samples that include invalid respondents may be difficult to interpret. In clinical settings, retaining underresponders in follow-up data may inaccurately portray the effectiveness of a treatment program and misrepresent the results (Butcher et al, 2014). The TSCC validity scales were developed to identify those who provide misleading responses that either exaggerate or minimise symptomatology. It follows that both clinicians and researches should employ caution when interpreting elevated responses on these scales.

The valid selection of any psychometric should be specific to the relevant population; including age, gender, reading level, cultural background, language, and traumatic stressor (Newman, 2002). Given that a perfect match is unlikely, it remains important to make use of professional judgment, extend related findings, and compensate with additional assessment strategies (Newman, 2002).

Eklund, Rossen, Koriakin, Chafouleas, & Resnick (2018) systematically review trauma screening measures for young people, including the TSCC, and found that none of the

measures included a teacher-rating or observational component. Eklund et al (2018) highlight that despite the generally observed low inter-rater agreement among teachers and parents when rating children's internalising and externalising behaviours, teacher input can provide an important perspective in case formulation (e.g. Eklund and Rossen, 2016; Gresham, Elliott, Cook, Vance, & Kettler, 2010; Salbach-Andrae, Lenz, and Lehmkuhl, 2009). The TSCC is a valuable component for the comprehensive, multidimensional clinical assessments of PTSD and is specifically designed to evaluate children's and adolescent's responses to sexual abuse, but should not stand alone as a diagnostic instrument for childhood trauma (Balaban, 2006; Drake, Bush, & van Gorp, 2005)., which Briere (1996) also points out.

Lobo et al (2015) highlight previous research demonstrating a lack of agreement between child and parent reports; with interrater agreement of psychological symptoms generally ranging from low to moderate, and discrepancies in both symptom and impact reports (Chaffin and Shultz, 2001; Van Roy, Groholt, Heyerdahl, & Clench-Aas, 2010; Wherry, Graves, & King, 2008). Lobo et al (2015) outline a tendency for parents to be more inclined to notice and describe externalising symptoms, whereas children tend to elucidate internalising symptoms and to report minor disturbances,

despite those disturbances associated with less impact and being less visible (Greenwald and Rubin, 1999; Muris, Meesters, & Spinder, 2003). This highlights the importance of asking children directly about their own traumatic stress (Kassam-adams, Gold, Monta, Kohser, Cuadra, Munoz, & Armstrong, 2013).

Conclusion

The potential effects of trauma must be understood within the larger context of a child victim's family and social environment. Several assessment strategies are likely to be necessary to capture the many relevant domains of functioning. Future research could therefore explore the benefit of a multi-informant approach when using trauma-related screening tools such as the TSCC with children.

The TSCC meets scientific criteria for a psychometric test, including those of test construction, and it has continued to develop a comprehensive research base over the past two decades. The TSCC encompasses the wide range of trauma-related symptoms observed in children and adolescents exposed to traumatic experiences, and has been demonstrated to have robust psychometric properties, reliability, and validity across a range of cross-cultural and clinical settings. The brevity of the TSCC and the fact that it

asks important questions pertaining to sexual concerns contributes to its popularity (Sadowski et al, 2000). The TSCC is a useful tool for psychological assessment and can assist health and social care professionals in treatment planning and symptom monitoring of childhood trauma related symptoms.

Chapter Four

Research Case Study: The assessment and treatment of an adolescent boy with a history of complex trauma displaying aggressive and antisocial behaviour

Chapter Two reported promising and comparable effects for EMDR and CBT in the treatment of children and adolescents, and recommended ongoing research as to their efficacy. Furthermore, cognitive behavioural therapies such as anger management, multimodal interventions and skills training have shown to be effective in reducing aggression (Sukhodolsky, Kassinove, & Gorman, 2004).

The previous chapter outlined the robust psychometric properties of the TSCC and outlined the importance of a multi-informant approach when using the instrument.

Ethical Considerations

This case study is a factual account of a treatment assessment and intervention for a young male age 14, placed under a supervision order Section 70(3) of the Children (Scotland) Act 1995 within a residential care and education resource. Although this treatment has been written up in the form of a case study for the purposes of the requirements of the Doctorate in Forensic Psychology, it was implemented as part of the young person's child's plan held centrally by the placing local authority. This case study was not borne from a prospective research intention, but rather emerged as a reflective enterprise through practice-as-usual with the young person in placement. Research through reflective practice and observation represents a relatively low risk of harm to individuals, where nothing is changed in the treatment conditions other than that which has been tried and tested before (Winship, 2007).

The work was fully supervised by a Forensic Psychologist and undertaken through agreement with the placing social worker. Due to the age and vulnerability of the young person, careful consideration was given to the process of acquiring consent for the intervention to be written-up as a case study. Consultation was held with his case manager and local

authority social worker, in addition to my university course supervisor, coordinating supervisor, and placement supervisor. It was considered that consent would be most appropriately sought from the case manager, who knew the young person well, held responsibility for his care plan, and was unconnected with the current research. Please see Appendix H for a copy of the consultee participant information sheet and Appendix I for the signed letter of consent.

For the purposes of confidentiality, the young person will be referred to as Child X throughout the case study.

Abstract

Child X is a 14 year old boy accommodated in a residential care and education service under Section 70(3) of the Children (Scotland) Act 1995. Although Child X currently lives within very tightly controlled circumstances, his presentation is concerning. He is reported to be invasive of personal space, holds distorted ideas about what constitutes appropriate behaviour, exhibits sexually disinhibited behaviour towards peers and staff (particularly females), evidences attempts to plan for sexualised behaviours, demonstrates a propensity for impulsive, violent responses, and lacks insight into the consequences of his behaviour.

Child X was assessed for a wide range of risk and protective factors including trauma, aggression, educational core skills, self-image/self-esteem, emotional intelligence, and resilience. Child X's areas of need were identified as insight into his problematic behaviour, recognition of strategies for identifying trigger points, and development of self-regulation skills. Management were keen to develop a better understanding of the risks that Child X might pose to himself and others, and to consider the best means of managing these risks; particularly in relation to any attempts to reduce his level of supervision.

The principal intervention was The Ross Programme (R&R2, Short Programme for Youth; Ross & Hilborn, 2003) tailored for delivery on an individual basis with Child X. The targets of The Ross Programme relate to developing thinking skills, managing thoughts and emotions, problem solving, detecting thinking errors, consequential thinking, and values enhancement. This provided Child X with the opportunity to develop skills that are known criminogenic needs of people who persistently offend. Child X attended all 12 scheduled sessions and remained adequately engaged throughout. Self report, together with third party evidence from his care staff and teachers, suggested that he continued to make positive lifestyle changes. Reassessment following the intervention did not highlight any significant reduction in the areas of risk and need identified prior to beginning treatment.

Introduction

Child X is a 14 year old boy who currently resides in residential care. He is alleged to have been both a victim and perpetrator of sexual abuse and exhibits inappropriate sexual behaviours towards males and females; both younger and older. Staff are concerned that he is at risk of perpetrating sexual offences without intensive levels of supervision; currently in place. Child X had resided within his current

placement for approximately three months at the beginning of the case study. Child X was initially referred to me following a period of refusal to engage with his allocated female psychologist, and the observation by care staff that he was more responsive to males.

Developmental History

According to Child X's account and what is known about his background from case files, he has been a victim of neglect and abuse throughout his childhood. Although there are information gaps regarding his experiences of trauma and abuse, the following incidents cited in the initial placement referral form are noted to be relevant:

- Birth: Child X's first months were spent in an environment that was characterised by domestic violence and high levels of stress. Parental neglect resulted in Child X being placed in the care of his paternal grandparents;
- Age 1 to 6: Alleged sexual assaults by his grandfather, and exposure to pornography whilst in his care. Regularly witnessing intimate partner violence directed from his grandfather to his grandmother.

- Age 6: Physical assault in which his grandfather burst his lip. Child X was removed and placed in his father's care;

- Age 6 to 11: Allegations of being sexually assaulted by a number of people during the course of his primary school years. For example an allegation (aged seven) that his cousin forced him to perform oral sex on him. Records indicate that allegations during this period were dismissed as "attention seeking".

Background information also indicates that Child X is alleged to have perpetrated a range of violent and sexual behaviours against others in a range of contexts:

- Age 12: Allegations of Child X's inappropriate sexual behaviour whilst in respite foster care;

- Age 12: Assault against his younger step-sister in which he placed his hands around her throat. This resulted in Child X being placed in residential care;

- Age 12: Alleged involvement in a serious fire-raising incident in a residential care service, resulting in him being placed in secure care. There are very limited details about this incident;

- Age 14: Allegation that Child X masturbated in front of a 15 year old female resident in his current placement;
- Age 14: Allegation of non contact sexual offence against his step-sisters (aged four and seven) during a home visit. Child X is alleged to have masturbated in front of them and attempted to persuade them to touch him.

Against this backdrop, Child X now exhibits a range of concerning behaviours and attitudes. He is sexually disinhibited, impulsive, and demonstrates a limited regard for the consequences of his behaviour. He exhibits inappropriate sexual boundaries and distorted values regarding sex, violence and gender issues, possibly as a consequence of his own experiences of trauma. Recent incidents have indicated that there may be elements of premeditation and planning associated with his sexualised behaviours. For example, Child X unsuccessfully attempted to coerce a younger peer male peer to kiss him when they would be out of sight of staff at the waterslide queue, in advance of a visit to the swimming pool.

Child X is highly socially isolated. As a result of his behaviours, and concerns about his conduct with peers, he has largely been educated alone or in small groups during the past two years. Following the alleged assault against his step-

sisters, his family have ended contact with him and therefore he has no secure attachment relationships with anyone, excepting the professionals who are involved in his care. Care staff report that Child X articulates a sense that he has "nothing left to lose".

Care staff have managed Child X's behaviours by limiting his opportunity for social interaction. However as he approaches his fifteenth birthday, staff are prompted to consider whether it is appropriate to broaden his access to social opportunities in preparation for his transition to adulthood and possible community living. To inform the planning and management of this transition, relevant professionals were keen to develop a clearer understanding of the risks that Child X's sexually harmful behaviour poses to himself and others, and to consider the likely risk scenarios that need to be managed.

The residential service is a rural three-bedroom residential care home. Child X currently shares the unit with a 15 year old female peer, and their relationship is characterised by regular arguments and threats of violence toward one another. Child X has very little opportunity for social contact and is supervised by staff 24 hours a day due to concerns about the risks that he presents.

Within this highly supervised environment, care staff report that Child X exhibits a range of concerning behaviours and demonstrates very poor impulse control. On a day-to-day basis he displays sexualised language and behaviour and is reported to be invasive of personal space. His key-worker reports that on a number of occasions he has attempted to "ping or undo" her bra-strap, under the guise of hugging her. At the recent school prom, Child X approached an unknown female member of staff, made inappropriate sexual advances and suggested that they get a hotel room. In the presence of 11 and 12 years old females, Child X was observed by staff to be making plans and attempts to approach them in a sexually suggestive manner.

Family Structure and Functioning

Child X was born into an unsettled family context and was placed on the child protection register at birth. His mother is reported to have abused drugs and alcohol during her pregnancy and in addition to having mental health problems was also reported to be violent towards her partner; Child X's father. Child X was removed from the care of his parents and placed in kinship care with his paternal grandparents when he was six months old.

Child X's mother and father separated one year after his birth, and his father has since remarried and had a further two children, both girls. Child X remained in the care of his grandparents until he was six years old and is known to have suffered abuse and neglect during this period. Child X's grandfather is described in reports as being a "difficult, odd and manipulative man" and Child X is noted to have made a range of allegations against him. Child X reports that his grandfather frequently asked him to sleep in his bed wearing only his underwear, that his grandfather "kissed his willy", and that he had extensive access to pornography whilst in his grandfather's care. Following a confirmed episode of physical assault against Child X, social work removed him and placed him in his father's care. His grandfather has since passed away.

Whilst Child X is reported to have idolised his father in the past, Child X's account indicates that he frequently felt rejected and scapegoated within the family unit. For example, he perceives being less loved than his two younger step-sisters and given less positive attention from his father and step-mother as a result.

Offending

The available information indicates that Child X has no formal convictions and no outstanding charges. Child X has made a range of allegations over a number of years that he has been a victim of sexual assault and abuse. No allegations have resulted in formal charges being brought against the alleged perpetrators.

Psychosexual Functioning/Relationship History

Child X has experienced historic episodes of trauma which have resulted in distorted sexual boundaries. He has a developmental history that is characterised by neglect and sexual abuse. He therefore exhibits distorted views about relationships and intimacy, and demonstrates both poor impulse control and sexual disinhibition. It is accepted that he was regularly exposed to pornographic materials until he was removed from the care of his grandfather at the age of six.

Child X appears to be attracted to both males and females, and has demonstrated pre-meditated attempts to initiate sexual contact with young females (including his younger step-sisters). There is no information to suggest that Child X has ever had an age-appropriate relationship with a female, or male peer.

Social History and Peer Functioning

Child X's social contact is highly restricted as a result of concerns about the risks he may pose to peers. As such, it is difficult to draw conclusions about his social functioning. Since coming into care he has had limited opportunity to interact with others and has largely been educated on a one-to-one basis. As a result he has made no friends.

Child X reports that he longs to belong to an anti-social peer group and indicates that the only reason he has not misbehaved more in his current placement is that he has no peers to regularly associate with. However, Child X also reports that he believes he is not like other people and is set apart from others. Where Child X has had opportunities to interact with others, staff report that he tends to exhibit intimidating behaviours that can leave others feeling uncomfortable e.g. prolonged staring.

Mental Health

Child X has a diagnosis of Attention Deficit Hyperactivity Disorder (ADHD) and Oppositional Defiance Disorder (ODD) and his presentation is noted to improve when he complies with his prescribed medication; Concerta XL (methylphenidate). His CAMHS psychiatrist indicates that the ADHD diagnosis may have captured one aspect of a much

wider "developmental trauma disorder" which is characterised by Child X's reactive and disinhibited attachment difficulties, and general developmental and social delays. There is no concern about cognitive ability, and background education (mainstream) reports suggest that his learning ability is good, although his progress has been hampered by poor behaviour.

In the past Child X has exhibited a low general mood, and staff report that at present his mood can fluctuate rapidly. There are noted to be sporadic episodes of self-harm and occasional passive statements of suicidal intent, usually following an episode in which it has been perceived he felt rejected. On at least one such occasion he is noted to have placed a ligature around his neck.

Substance Misuse

Child X has previously abused aerosols and smoked cigarettes when he has been able to access them, however the current level of supervision within his placement affords restricted opportunity to engage in substance misuse.

Education

In the past Child X attended mainstream schooling. His records indicate that there were no learning issues but that his engagement was hindered by his behavioural issues. After

moving to his current placement, Child X has been educated on a one-to-one basis, and is planned to begin receiving lessons in a small group setting. Staff report that the decision to educate Child X on an individual basis was fuelled by concerns about his conduct with peers rather than any concerns regarding his learning ability. The aspiration is for Child X to eventually attend a local mainstream school whilst residing in his care placement.

Recreation

The high level of supervision to which Child X is subject has precluded him from engaging in recreational activities with peers. Within the last month he has been allowed to return to swimming at the local leisure centre with staff, following a ban due to sexually suggestive behaviour in the changing rooms. He recently started attending a local youth club under the support and supervision of his care staff, however struggled to manage his behaviour appropriately and has ceased to attend.

Formulation

There are apparent and interrelated factors which are likely to have impacted upon Child X's development and behaviours of concern. A structured way to present an understanding of the motivation behind Child X's actions is to organise the available

information into predisposing risk factors/motivators (i.e. factors that increase the likelihood of behaviour); precipitating factors/destabilisers (i.e. factors that trigger the behaviour or disinhibit usual behavioural controls; perpetuating factors (i.e. that maintain the risk) and protective factors/inhibitors (i.e. aspects of an individual's life that assist in moderating risk).

Weerasekera (1996) argues that no one theoretical perspective is adequate to account for the full complexity of any case and thus all relevant theoretical perspectives should be used. "Multi-Perspective Case Formulation (Weerasekera, 1996) is a version of the application of the biopsychosocial model of mental health applied to case formulation and involves consideration of biological, psychological and social factors, and consideration of the individual and the system in which they behave. These different perspectives are integrated into one integrated formulation, sometimes referred to as "The Four P's Framework", commonly used within cognitive behavioural therapy (CBT) (Johnstone & Dallos, 2006). The four levels of the framework include; *Predisposing Factors* (the factors that increase the person's vulnerability to their current problems or led to the problems starting), *Precipitating Factors* (the factors that may have triggered the person's problems), *Perpetuating Factors* (the

factors that maintain the problems), and *Protective Factors* (the positive assets and strengths the person demonstrates).

Predisposing Factors

Child X's early environment and familial context are likely to have had a significant impact on his social learning about how to behave and get his needs met. The experience of physical abuse within his grandfather's home will have modelled violence and aggression as normative means of communication and problem solving. His grandfather's blurring of appropriate sexual and non-sexual boundaries are likely to have impacted on Child X's understanding of what is appropriate behaviour, and will have shaped his distorted views and attitudes. In relation to his sexual behaviours, the perceived absence of a clear response to his allegations of sexual abuse may have perpetrated a skewed understanding about what constitutes acceptable behaviour and a belief that there are no consequences for inappropriate sexual behaviour.

The significant disruption in Child X's attachment relationships are also likely to have contributed to his current behaviours. His early experience of inconsistent parenting, domestic violence, and the reinforced messages of rejection from his father and grandfather are likely to have impacted on his ability to trust, to engage honestly, to identify and empathise

with others, and to accept responsibility for his own behaviours. His experiences of abuse and neglect from care-giving figures may have contributed to a belief that others will hurt, abuse or reject you, and that other people cannot be relied upon to ensure your safety or meet your needs.

The longstanding experience of implicit and explicit rejection is also likely to have shaped Child X's emerging sense of identity; conveying to him that he is bad, unlovable, risky and different from others. His recent, relative isolation from his peers as a result of his concerning behaviours is likely to have reinforced this view. As such, Child X has been denied the opportunity to experience contexts which might allow him to develop a more positive self-view.

Precipitating Factors

Accounts about Child X's day-to-day presentation indicate that the risk he presents to others is chronic and pervasive across a range of contexts. Care staff report that the risk is imminent and that Child X would offend at any time if given the opportunity. It is not clear whether there are particular factors which might trigger offending behaviour or cause it to escalate, however anger or perceived rejection may be likely precipitants.

The nature of any offending is likely to be sexual and could be directed at any victim, including family members. Child X has demonstrated a history of aggressive and violent conduct and has expressed a longing to be involved in anti-social and delinquent behaviour. As such, the nature of the risk is serious, the range of possible risk scenarios is noted to be diverse and the victim profile may be similarly broad-ranging.

Perpetuating Factors

Child X's limited social skills will make it difficult for him to feel comfortable and motivated in developing new, pro-social networks. His socially awkward presentation, including a propensity to intimidate others, will likewise make it challenging for other people to form healthy attachments with him. Consequently, Child X will struggle to disentangle himself from the influences of an antisocial peer group; that he self-reports as longing for the opportunity to ultimately connect with. He has limited insight into how his offending behaviour could have an impact on his ability to form healthy relationships, achieve in education, and eventually find suitable employment.

Child X expresses a negative self-view describing himself as "risky" and ultimately views life ahead as being in prison. Although these are areas that could potentially be addressed,

the concern is that Child X lacks the ability or levels of motivation required to successfully engage with the relevant services.

Protective Factors

At present Child X is subject to a high level of supervision which has served as the primary protective factor. It is evident from records and his relationships with selected staff in the current placement that Child X is capable of forming relationships and attachments with caregivers. However, he has limited personal or social strengths, and is noted to be highly impulsive with little inability to self-regulate in the company of adults, peers, or when playing by himself, e.g. recent damage to two computer consoles when losing at a game. Situations where staff would describe Child X as having "good" or "normal" behaviour are characterised as short in duration, and associated with the absence of any expectations or demands, placed on him. This would indicate that he does not currently possess adequate internal protective factors. As such, any attempts to integrate Child X into wider social contexts should be undertaken with high levels of monitoring and scrutiny, and with particular attention to victim safety planning.

Assessment and Analysis

The routine procedure of the Psychological Services and Intervention (PSI) team providing input to Child X's residential service is to assess young people on their admission and at yearly intervals thereafter. This routine assessment, termed The What Works Programme, makes use of a suite of tools that indicate levels of risk and need for trauma, aggression, self-image/self-esteem, emotional intelligence, resilience and educational core skills.

Kettles (2004) discusses the broad use of the term "risk", from an epistemological perspective, across domains of forensic practice including assessment, intervention and management. The concept is clearly multifaceted and rarely defined in the literature, however the most common types of forensic risk concern physical violence, sexual violence and the prediction of violence (e.g. Allen 1997, Hart 1998).

It should be noted that the term "risk" is routinely used by PSI throughout the What Works Programme to illustrate where a young person fits within general population percentiles, as adapted from data available in the respective assessment manual. The basic principle is employed whereby levels of risk are categorised as "high" (91st to 100th percentile), "medium" (81st to 90th percentile), and "low" (80th percentile

and below). Statistical approaches have been argued to be more objective than the subjective judgements of professionals (e.g. Monahan, 2005), and data drawn from a population or a group to produce statistical norms can be used to classify individual risk and inform treatment planning. However, it is noted that although the concept of "risk" in these terms was widely understood and used by professionals across the placing organisation for Child X, this approach to risk categorisation does not necessarily sit easily with other fields of knowledge and practice.

Child X was assessed over a period of three sessions using the measures outlined below (see Appendix J for full assessment report). The outcomes for each psychometric in terms of standardised risk level are summarised in Table 4. The corresponding observations of actual functioning were thereafter completed over two sessions with Child X's key team (case manager, key worker and key teacher). The levels of risk identified through staff observations (displayed in Table 4) differed from the self-report outcomes; with each being considered higher risk excepting resilience (see Appendix J for full report).

- **Trauma Symptom Checklist for Children (TSCC; Briere, 1996)**

The TSCC (Briere et al., 1996) is a self-report measure of posttraumatic distress and related psychological symptomatology, intended for use in the evaluation of youth (aged eight to 16 years old). The robust psychometric properties of the TSCC are reported in detail during the previous chapter, (summarised in Appendix O).

Child X's self-report indicated an overall medium level risk for trauma symptoms in contradiction to the staff observations of actual functioning which indicated an overall high level of risk.

- **The Aggression Questionnaire (AQ; Buss & Warren, 2000)**

The Aggression Questionnaire (AQ; Buss & Warren, 2000) is a self-report measure of aggression (for ages nine onwards), intended for evaluation of aggressive responses and ability to channel those responses in a safe and constructive manner. The AQ has 34 items on five clinical scales; Physical Aggression (PHY), Verbal Aggression (VER), Anger (ANG), Hostility (HOS) and Indirect Aggression (IND). It also provides an AQ Total score. The AQ has robust psychometric properties (Appendix P).

Child X's self-report indicated an overall low level risk for aggression in contrast to the staff observations of actual functioning which indicated an overall high level of risk.

- **Self Image Profiles (SIP; Butler, 2001)**

The Self-Image Profiles (SIP) are brief self report measures for ages seven to 16 that tap an individual's theory of self. The SIP provides a visual display of Self-Image, enabling the young person to reveal to themselves, as well as to the assessor, the way in which they construe themselves as they complete it. The SIP also provides a measure of Self-Esteem, which is calculated by the discrepancy between ratings of 'How I am' and 'How I would like to be'. The SIP has robust psychometric properties (Appendix Q).

Child X's self-report indicated an overall medium level risk for self-image in contrast to the staff observations of actual functioning which indicated an overall high level of risk.

- **Bar-On EQ-i:YV (Bar-On & Parker, 2000)**

The Bar-On Emotional Quotient Inventory: Youth Version (Bar-On EQ-i:YV) is suitable for ages 7 to 18 years. Measures contained in the Bar-On EQ-i:YV scales include Total EQ (made up of Interpersonal, Intrapersonal, Adaptability and Stress Management subscales), General Mood, Positive

Impression and an Inconsistency Index. The EQ-i:YV has robust psychometric properties (Appendix R).

Child X's self-report indicated an overall medium level risk for emotional intelligence which was in contrast with the staff observations of actual functioning.

- **Resiliency Scales for Children and Adolescents (RSCA; Prince-Embury, 2007)**

The Resiliency Scales for Children and Adolescents (RSCA) is a combination of three self-report scales; Sense of Mastery (20 items), Sense of Relatedness (24 items), and Emotional Reactivity (20 items), consisting of a total of 64 items. The RSCA is suitable for ages nine to eighteen. The RSCA has robust psychometric properties (Appendix S).

Child X's self-report indicated an overall high level risk for resilience which was in line with the staff observations of actual functioning.

- **Wechsler Individual Achievement Test, UK 2nd Edition (WIAT-II^{UK}; Wechsler, 2002)**

The WIAT-II^{UK} provides assessment of reading, language and numerical attainment in one test (for ages 4 years to 16 years 11 months), providing information about an individual's

achievement skills and problem solving abilities. The subtests of WIAT-II^{UK} include word reading, reading comprehension, pseudoword decoding, numerical operations and mathematical reasoning. Child X was assessed as a high level of risk for both literacy and numeracy skills.

Additional Assessments

Due to the complex needs of Child X, in addition to the routine programme of assessments, I initially planned to assess using The Estimate of Risk of Adolescent Sexual Offense Recidivism (The ERASOR: Worling & Curwen, 2001); an empirically-guided checklist used to estimate the short-term risk of a sexual re-offence for youth aged 12-18. I made the decision not to carry this out on clarification Child X has never been formally convicted of a sexually related offence (a prerequisite for The ERASOR assessment). Disclosed guilt by Child X and professional observations of behaviour deem sexually inappropriate/harmful behaviour to be high risk and I supported Child X's key worker to complete his Behaviour Support Plan (BSP) and Individual Risk Management Plan (IRMP) accordingly.

- **The Structured Assessment of Violence Risk in Youth (SAVRY; Borum, Bartel & Forth, 2006)**

With consideration to the level of violence frequently presented by Child X, I completed a SAVRY assessment. The SAVRY is used in the assessment of adolescents, between the ages of 12 and 18 years, composing 24 items in three risk domains (Historical Risk Factors, Social/Contextual Risk Factors, and Individual/Clinical Factors. In addition, the SAVRY also includes six Protective Factor items that are rated as either Present or Absent.

I facilitated the assessment during one sitting with input from his social worker, case manager, and key worker. The professionals involved were advised of the nature of information being sought in advance of the meeting to allow time to prepare for informed responses. The majority of historical risk factors, social/contextual risk factors, and individual/clinical risk factors for Child X were deemed to be of high risk. Additionally all but one protective factor; strong attachments and bonds, were considered to be absent. There was an overall high risk assessed for Child X with regard to the SAVRY.

Domain	Assessment Tool	Self-Report Level of Risk	Observations of Actual Functioning/ Structured Professional Judgement Level of Risk
Trauma	TSCC	Low	High
Aggression	AQ	Low	High
Self-Image/Self-Esteem	SIP-A	Low	High
Emotional Intelligence	BarOn EQ-i YV	Medium	High
Resilience	RSCA	High	High
Violence	SAVRY	N/A	High
Literacy	WIAT-II^{UK}	High	N/A
Numeracy	WIAT-II^{UK}	High	N/A

Table 4. Initial Assessment Outcomes for Child X.

- **The Rickter Scale (Hutchison & Stead, 2001)**

The Rickter Scale is a motivational, multi-sensory assessment and action planning process. The tool itself is an A4 size hand-held board with ten headings down the left hand side and a magnetic slider for each heading. This slider can be moved along a scale of 0 to 10, enabling the user to scale how they feel about each topic and identify future goals. Prior to beginning treatment I undertook assessment with Child X using a 10-item scale previously commissioned by the placing organisation, specifically for measuring outcomes with the programme of intervention identified; R&R2. The 10 items measured Anger Control, Offending Behaviour, Relationships,

Influences, Listening, Challenges, Decisions, Alcohol; Drugs, and Happiness. Details of Child X's initial Personal Action Plan are detailed in Appendix K together with a graphical representation of his initial and desired/goal state (Appendix L).

Current Intervention

Given the pervasive sexually inappropriate behaviour for Child X, it would be appropriate to address this specifically through a focussed programme of intervention such as The Assessment Intervention Moving on (AIM-2; Print, Griffin, Beech, Quayle, Bradshaw, Henniker, & Morrison, 2009). The AIM-2 is a tool designed to guide the assessment of young people (aged 12 to 18) who are known to have sexually abused another person. However, the potential for this work to take place is currently restricted pending the progression of criminal charges against Child X for alleged sexual abuse against his younger siblings.

Through multi-disciplinary discussion with Child X's social worker, CAMHS psychiatrist, case manager, and my co-ordinating supervisor, R&R2 was identified as a suitable programme of intervention. Cognitive behavioural therapies such as anger management, multimodal interventions and skills training have shown to be effective in reducing

aggression (Sukhodolsky, Kassinove, & Gorman, 2004). Furthermore, R&R2 has been shown to improve problem-solving ability, behaviour, criminal attitudes, and the risk of general re-offending for young people in a Scottish residential care setting (Curran and Bull, 2009).

The Ross Programme (R&R2; Ross and Hillborn, 2003)

R&R2 comprises 12 sessions, each lasting 90 minutes. The programme has been designed using the principles of CBT and can be delivered in either a group setting or on an individual basis depending on the needs of the young people. The session delivery involves a combination of PowerPoint, flip-chart, role-play and reflective discussion.

The targets of R&R2 relate to:

- Skilled thinking
- Managing thoughts and emotions
- Problem identification and thinking of solutions
- Detecting thinking errors
- Consequential thinking
- Values enhancement
- Managing conflict

The underpinning skills of R&R2 relate to:

- Motivational interviewing (Prochaska & Norcross 1999)
- Pro-social modelling (Trotter 2000)
- Relapse Prevention (Marshall, Hudson, & Ward 1992)
- Making Good (Maruna 2001)
- Thinking skills (de Bono 2000)

Delivery

I supported Child X through each of the 12 sessions R&R2, adapted for delivery on a one-to-one basis. Child X engaged well across each of the sessions, allowing all of the aims and objectives to be covered satisfactorily. Child X was generally reluctant to take part in role-play exercises initially due to feeling self-conscious, as evidenced through statements such as "I'm not doing that, its embarrassing". However perseverance and modelling examples proved successfully motivating.

Child X generally demonstrated a good level of understanding of the material covered as evidenced through his level of engagement in the planned exercises, ongoing dialogue during the sessions, and his ability to answer questions during summary stage at the end of each session.

The Six Thinking Hats (De Bono, 1999) were explored during each session and practiced as a means of working through problems that Child X was experiencing. Child X responded very positively to the hats metaphor and took pride in being able to recount the meaning of each different colour. He was able to demonstrate a good ability to use the different ways of thinking when working through both personal issues and fictional scenarios presented in the programme material. Six coloured hats were on display in the session room throughout programme delivery and physically worn on occasions to illustrate the "thinking skills" being explored.

Child X was supported to learn about and practice two different methods of self-regulation; deep breathing and self-talk. The programme refers to the method of deep breathing taught as "central control" because you learn to control the central part of your anger; your arousal level. The instruction-based practice of relaxation coping skills, including deep breathing, is known to increase effectiveness of self-regulation for anger management (e.g. Deffenbacher, Huff, Lynch, Oetting, & Salvatore, 2000).

Self-talk is an important element of the programme, providing regular opportunity to explore and practice the core concept of CBT, i.e. what you think determines what you feel and what

you feel determines what you do. CBT is a psychosocial intervention that is the most widely used evidence-based practice for improving mental health (Field, Beeson, & Jones, 2015). CBT focuses on the development of personal coping strategies that target solving current problems and changing unhelpful patterns in cognitions (e.g. thoughts, beliefs, and attitudes), behaviours, and emotional regulation (e.g. Beck, 2011). Child X engaged well in practicing the strategies during session work. Child X demonstrated transferrable application of using self-talk to manage his emotions. For example, following a prolonged period of being resistant to visit the toilet during the night for fear of the urban legend "Bloody Mary" appearing in the bathroom mirror, he described having alleviated this through use of an internal dialogue; "she does not exist" and "I am safe and calm". Self report, together with third party evidence from his care staff and teachers, suggested that he continued to make positive lifestyle changes. For example, Child X described thinking ahead to a shopping trip where staff would be buying him a computer game of his choice, and stating to himself "she is not worth it" when faced with the likelihood of escalating argument/fight with his peer that would have potentially prevented this opportunity. This and similar scenarios were confirmed by third-party feedback from staff.

Assignments

Child X was set various assignments to complete that were either relevant to new material covered in the preceding session, or required preparation for the forthcoming session. Child X generally responded as motivated to complete any assignments set, as demonstrated by asking questions to clarify exactly what was expected of him. However, he consistently presented without having completed assignments, and additional time was often spent at the beginning of sessions providing support to complete these, which he did so with ease. The exception to this was Child X's emotion diary which he completed almost daily. The emotion diary was a tool used to identify any apparent patterns of strong emotions and the triggers associated with these. Child X appeared to enjoy completing his diary and sharing this on his return to the following session. Anger was the predominant emotion highlighted and this was generally triggered by Child X's feelings of inadequacy to a female peer cohabiting in his residential service. Although repetitive, the diary provided a good opportunity for working through relevant and personalised scenarios during sessions, which Child X appeared to find cathartic.

As stipulated during the Risk and Risk Management (RARM) meeting I attended prior to beginning treatment, I was restricted from discussing Child X's alleged sexual offence against his younger siblings pending criminal investigation. This limited the potential for working through this scenario as part of the consequential and morality based exercises. Child X showed a variation of pro-social and anti-social views during structured discussions. He was able to identify the difference between right and wrong, legal and illegal, however regularly stated that he would choose to take an antisocial option to problem solving scenarios.

Results

The programme concluded with a review of progress using The Rickter Scale assessment with the same ten areas of focus measured pre-treatment. The post-programme review of Child X's Personal Action Plan are detailed in Appendix M. With relation to Anger Control, Child X reflected "I don't know, it is like I have been given power to control it". In relation to his ability to make decisions he reported "It's like I am taking my life back", and for the heading of Happiness; "Things are getting better". A graphical representation of Child X's perceived "distance travelled" (progress) is displayed in Appendix N. This illustrates a self-reported distance travelled

towards the desired state of 89%, for which Child X described feeling "surprised" and "proud".

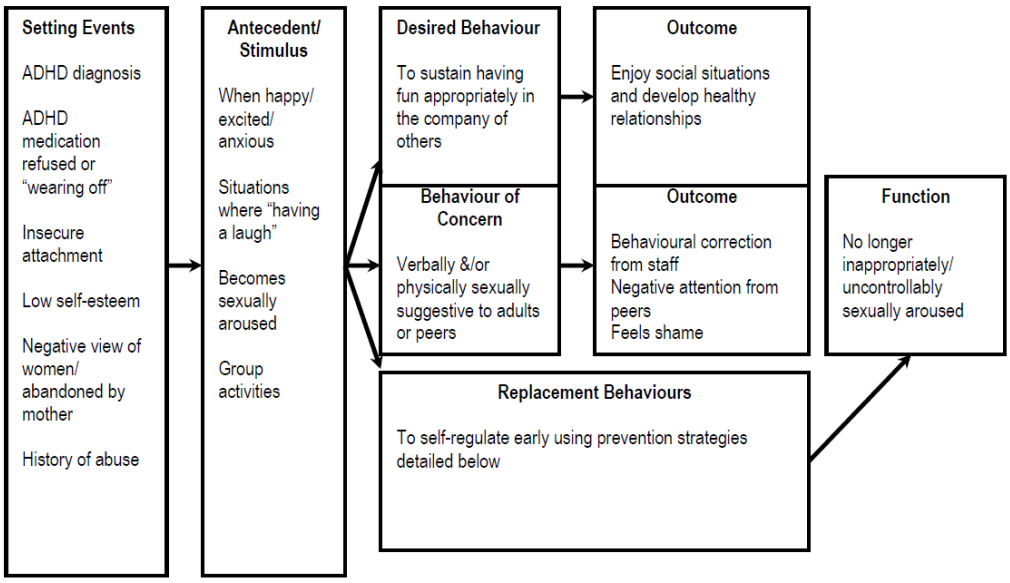
Towards the end of the programme, there was a marked improvement in Child X's tendency to proffer prosocial responses during problem solving scenarios. Third party evidence from care and education staff suggested a similar shift in Child X's prosocial interactions with both peers and adults. It was also reported by staff that there was a significant reduction in the level of physical intervention required to help Child X manage his behaviour following engagement in the programme.

Functional Behaviour Analysis (FBA)

Sexually inappropriate behaviours are a pervasive concern for Child X. These manifest themselves in sexually suggestive language, exposing himself, and inappropriate touch. During a multi-disciplinary meeting following completion of The Ross Programme, it was identified that a FBA, specific to these behaviours of concern, would be appropriate in line with the placing organisation's behaviour management programme; Safe Crisis Management (SCM). Using the steps outlined in the SCM Instructor manual, I facilitated a meeting with Child X's case manager, key worker, key teacher and local authority social worker. The prescribed SCM template for completion of

the FBA was completed (see Figure 2 below) and identified the specific behaviour of concern as Child X being "verbally and/or physically sexually suggestive towards adults or peers". The outcome of this behaviour was that Child X generally received correction from staff, received negative attention from peers, and was considered to experience as sense of "shame" as a result. The function of this behaviour was identified as Child X no longer feeling inappropriately/uncontrollably sexually aroused. It was agreed that the "replacement behaviour" for Child X would be self-regulation using the skills he had practiced and demonstrated effectively during The Ross Programme; namely self-talk and deep breathing. The use of a code word that staff could use discreetly in group situations with Child X as a means of pre-emptive behaviour correction was also agreed.

Figure 2. Functional Behaviour Analysis for Child X.



Prevention Strategies		Teaching Strategies	Intervention Strategies	Emergency Interventions
Setting Event Strategies	**Antecedent/Stimulus Strategies**	**Teaching Strategies**	**Outcome Strategies**	**Outcome Strategies** Danger to Self or Others
Staff to ensure consistent use of medicaiton for ADHD.	Avoid group activities for Child X if medicaiton refused. Encourage self-regulaion strategies learned during The Ross Programme: • Deep Breathing • Self-talk	Reinforce self-regulaion strategies learned during The Ross Programme: Deep Breathing Self-talk Practice Bio-feedback using The Wild Divine	Staff to use pre-correction with Child X prior to group activities or event s known to cause over excitement. Agree on a "code word" with Child X as a subtle prompt for use during group activities.	There are no contraindications to any approved SCM physical intervention technique. Refer to Child X's behaviour support plan for further guidance.

Care and education staff were instructed to record each incident of the specific behaviour of concern as it occurred for a period of 2 weeks, as a means of establishing a baseline for comparison to determine effectiveness of the interventions used thereafter. There were 31 incidents recorded prior to intervention, and only 8 recorded in the two week follow-up. During a follow-up meeting it was considered that the

identified intervention process was having a positive impact on Child X's behaviour of concern.

Reassessment

In line with routine procedure of the PSI team I reassessed Child X twelve months following his admission date; approximately two months after his completion of The Ross Programme. Child X was reassessed over a period of two sessions with the outcomes for each psychometric in terms of standardised risk level summarised in Table 5. The corresponding observations of actual functioning were thereafter completed during one session with Child X's key team (case manager, key worker and key teacher). The levels of risk identified through staff observations (displayed in Table 5) differed from the self-report outcomes with regard to trauma, aggression, and self-image/self-esteem, with each being considered higher risk. The assessment of emotional intelligence and resilience indicated the same level of risk for both staff observations and self-report. See Appendix J for a full breakdown of the reassessments.

Domain	Assessment Tool	Self-Report Level of Risk	Observations of Actual Functioning/ Structured Professional Judgement Level of Risk
Trauma	TSCC	Medium	High
Aggression	AQ	Low	High
Self-Image/Self-Esteem	SIP-A	Medium	High
Emotional Intelligence	BarOn EQ-i YV	High	High
Resilience	RSCA	High	High
Violence	SAVRY	N/A	High
Literacy	WIAT-II^{UK}	High	N/A
Numeracy	WIAT-II^{UK}	High	N/A

Table 5. Reassessment Outcomes for Child X.

The staff observations of actual functioning for Child X would suggest that his level of risk did not moderate across the domains measured during his initial year in placement (see Table 6). Child X's self-report indicates an increase in his level of risk for trauma, self-image/self-esteem, and emotional intelligence (see Table 6). When reflecting on the reassessment outcomes during a CPDM, it was considered that the increased level of risk for self-report was indicative of Child X having developed greater self-awareness into his patterns of behaviour, and insight into his current/future situation; i.e. that returning home to the care of his parents was never going to be an option.

Risk Area	Self-Report Level of Risk		Observation Level of Risk	
	Initial Assessment	**Reassessment**	**Initial Assessment**	**Reassessment**
Trauma (TSCC)	Low	Medium	High	High
Aggression (AQ)	Low	Low	High	High
Self-Image (SIP)	Low	Medium	High	High
Emotional Intelligence BarOn EQ-I (yv)	Medium	High	High	High
Resilience (RSCA)	High	High	High	High
Literacy Skills (WIAT-II)	High	High	N/A	N/A
Numeracy Skills (WIAT-II)	High	High	N/A	N/A

Table 6. Comparison of Initial and Reassessment Outcomes for Child X.

However, despite the overall risk reassessed as high for trauma through staff observations, the specific subscales of Depression, Post-Traumatic Stress, and Dissociation were considered to have moderated somewhat to a level of medium risk (See Appendix J, p17). Despite the overall risk reassessed as high for emotional intelligence, the specific subscale of General Mood was considered to have moderated somewhat to a level of medium risk (See Appendix J, p20). Also, despite the overall risk reassessed as high for resilience,

the specific subscale of Relatedness was considered to have moderated somewhat to a level of medium risk (See Appendix J, p21). These results would suggest some positive progression for Child X during his initial year in placement.

Discussion

Drawing this together, Child X engaged well with the key aspects of the work. The main gains achieved appear to have been (i) the development of pro-social problem solving skills, and (ii) the effectiveness of self-regulation strategies in practice, namely self-talk and deep breathing. It seems possible that his thinking styles have also become somewhat more prosocial based on anecdotal evidence from care and education staff. Child X was assessed for a wide range of risk and protective factors including trauma, aggression, educational core skills, self-image/self-esteem, emotional intelligence, and resilience. Although Child X's has been reassessed after one year in placement as remaining high risk overall for each of these domains, there is evidence of some moderation for areas of trauma, emotional intelligence, and resilience.

Sapouna et al (2011) suggest that motivation should be seen as a treatment need. Child X successfully engaged in using The Rickter Scale as a motivational assessment tool both pre-

and post treatment through The Ross Programme. The post-treatment assessment illustrated a self-reported distance travelled towards the desired state of 89%, for which Child X described feeling "surprised" and "proud". On concluding the programme, there was a marked improvement in Child X's tendency to proffer prosocial responses during problem solving scenarios. Third party evidence from care and education staff suggested a similar shift in Child X's prosocial interactions with both peers and adults. There was a significant reduction in the level of physical intervention required to help Child X manage his behaviour post treatment which would suggest improvement in his problem solving skills and ability to self-regulate.

Hollin (1999) highlights that intervention programmes using cognitive-behavioural techniques which focus on the thinking skills of offenders produce the greatest reduction in problematic behaviour. Child X engaged well in the problem solving scenarios presented during The Ross Programme and was supported to reflect on personal conflict examples with regards to his beliefs, perceptions, triggers, thoughts, feelings, behaviours and consequences. He appeared to develop good insight with regard to his problematic behaviours in light of his previous life experiences.

Given the pervasive sexually inappropriate behaviour for Child X, it would be appropriate to address this specifically through a focussed programme of intervention such as The Assessment Intervention Moving on (AIM-2; Print et al. 2009). The potential for this work to take place is currently restricted pending the progression of criminal charges as previously discussed.

If Child X is to lead a prosocial life in the longer term it is important that he is supported to consolidate and build upon the gains already made. To ensure the safety of others, if the currently high levels of supervision for Child X are to be reduced to increase his opportunities for social inclusion and self-efficacy, this must be managed at steady pace. The potential change of life circumstances will provide Child X with ample opportunities to show the progress he appears to have made, and opportunities for professionals to both test progress and reflect on further areas of support required.

Chapter Five

Research Project

The relationship between trauma and aggression in young people, and the role of protective factors.

The previous chapter presented a case study that employed a number of instruments including the TSCC, SIP, Bar-on EQ-i:YV, RSCA and the AQ. Using these same measures, this chapter aims to provide insight into the relationship between trauma and aggression in youth, and the role of protective factors in controlling this relationship.

Abstract

Objective: This study aims to provide insight into the relationship between the experience of trauma and the expression of aggression in young people, and the role of protective factors (self-image, emotional intelligence, and resilience).

Method: The sample comprised of 983 young people aged between nine and 17 years across six residential schools in Scotland for young people facing social, emotional and behavioural challenges. Measures included the Trauma Symptom Checklist for Children (Briere, 1996), Self Image Profiles (SIP; Butler, 2001), Bar-On EQ-i:YV (Bar-On & Parker, 2000), Resiliency Scales for Children and Adolescents (RSCA; Prince-Embury, 2007), and The Aggression Questionnaire (Buss & Warren, 2000). Correlation was used to establish the relationship between trauma and aggression. Multiple regression was used to test any impact of the protective factors on this relationship.

Results: Each trauma symptom was significantly positively correlated with all aspects of aggression, suggesting that as the presence of trauma symptoms increase so too do aspects of aggression.

The trauma symptom of Anger had the largest effect accounting for 35% of the variance (Adjusted R^2 = .35) in predicting Physical Aggression, and 46% when taking into consideration aspects of self-image (Adjusted R^2 = .46). Findings indicate that as children's anger or negative self-image increases, their level of physical aggression also increases. As children's level of dissociation increases, their level of physical aggression decreases.

When considering the interaction of protective factors, resilience had the largest effect accounting for 59% of the variance (Adjusted R^2 = .59) in predicting Anger. Results indicate that as children's emotional reactivity, anger (measured by TSCC) and post traumatic stress increases, their level of anger (measured by AQ) also increases.

Conclusions: The results support a positive correlation between traumatic experience and aggressive behaviour in adolescents. The hypothesis that individual protective factors of self-image, emotional intelligence, and resilience have an impact on this relationship is supported by their significant contribution in predicting Aggression.

Introduction

Childhood trauma has an impact on a number of domains of a person's functioning, including a tendency to manifest aggressive behaviour (Widom, 2000). However there are a number of research observations where, despite experiences of trauma in childhood, there are children who appear resilient and do not go on to manifest problematic behaviours such as aggression (DuMont, Widom and Czaja (2007).

There have been significant developments in understanding psychological trauma, its potential effects, and an increased availability of effective treatments for trauma-related conditions (Briere et al., 2001).

Children entering the social care system have generally suffered multiple traumatic experiences (Griffin, Martinovich, Gawron & Lyons, 2009). Griffin et al. (2009) sought to determine whether the traumatic experiences of children entering the care system have an impact on their problematic behaviours (including aggression) and whether these behaviours are moderated by individual protective factors, such as interpersonal skills and a sense of optimism. The results show a strong linear relationship between the number of traumatic experiences and the level of children's problematic behaviours. There is however an interactive

effect between traumatic experiences and protective factors regarding such behaviours, with protective factors having a greater effect of moderation as the number of traumatic experiences increase. In other words, the more personal strengths these children have developed, the less likely they are to engage in high risk behaviours.

Youth who engage in aggression and violence towards themselves or others, abscond, or engage in antisocial behaviour, have less stable foster care placements and are more likely to require intensive and expensive treatment interventions, such as residential placement (Weiner, Abraham & Lyons, 2001; Leathers, 2006). High risk behaviours have a large impact on child welfare outcomes, such as level of care and number of placements (Zinn, DeCoursey, George and Courtney, 2006). Understanding what factors influence whether children and young people engage in such behaviours is critical to creating effective child health and social care systems and services.

There is substantial evidence linking PTSD to maltreated youth (Kearney, Wechsler, Kaur and Lemos-Miller, 2010). Although knowledge about traumatic experiences in the general child welfare population is growing, relatively little is known about the childhood trauma of youth placed in the most restrictive

setting of residential care (Brady & Caraway, 2002). The majority of studies conducted among these youth describe the range of behavioural and emotional problems that they have (e.g., Archer & Hicks, 1998; Polnay, Glaser & Rao, 1996; Silver et al., 1992; Whitaker, Landsverk, Burns, Stambaugh & Rolls Reutz, 2009), but fail to connect these problems to actual trauma by documenting them through trauma-specific research or measures. Although there is an increasing awareness of the probable high rates of trauma exposure in the histories of youth in residential care, thus far only a few studies have addressed this issue (e.g. Collin-Vézina et al., 2011).

General strain theory argues that a maladaptive emotional mechanism (negative affect) mediates the relationship between trauma exposure and antisocial behaviour (Agnew, 1985), and Anger is viewed as the most potent form of negative affect (Agnew, 1992). Studies testing general strain theory (e.g., Agnew, 1989; Mazerolle & Piquero, 1997) support a mediating or indirect effect of negative affect, particularly anger, connecting experiences of strain with the development of aggressive and antisocial or delinquent behaviour (Maschi, Bradley & Morgen, 2008).

The working concepts of trauma, aggression, and of each of the protective factors being examined are outlined below.

Trauma

The Diagnostic and Statistical Manual of Mental Disorders (*DSM-V;* American Psychiatric Association [APA], 2013) specifically defines a trauma as "direct personal experience of an event that involves actual or threatened death or serious injury, or other threat to one's physical integrity; or witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate (Criterion A1). The person's response to the event must involve intense fear, helplessness, or horror (or in children, the response must involve disorganized or agitated behavior) (Criterion A2)" (p. 463). There is substantial evidence associating childhood trauma (e.g., sexual and physical abuse, neglect, exposure to domestic violence, and assaults by peers) with a wide range of later psychological symptoms, including anxiety, depression, anger, post-traumatic stress, dissociation, sexual concerns, and "acting out" or externalising behaviours (Arata, Langhinrichsen-Rohling, Bowers and O'Farrill-Swails (2005).

Aggression

Human aggression is any verbal or physical behaviour directed toward another person with the intention to cause harm (Anderson & Bushman, 2002). Buss and Perry (1992) evidence, through exploratory factor analysis, that the personality trait of aggression consists of four distinct substrates; physical, verbal, anger, and hostility. Physical and verbal aggression are described as hurting or harming others (representing the instrumental or motor component of behaviour). Anger is the physiological arousal and preparation for aggression (representing the emotional or affective component of behaviour). Hostility is said to consist of feelings of ill will and injustice (representing the cognitive component of behaviour). Buss and Warren (2000) later identified an additional substrate of aggression as "indirect"; described as the tendency to express anger in actions that avoid direct confrontation.

The causes and mechanisms of aggression are complex, and have been the focus of numerous studies (Tuente, Bogaerts & Ventile, 2019). For example, individuals who have encountered negative experiences during childhood are more likely to interpret an ambiguous action of others as hostile or threatening; influenced by a hypervigilance to threat and

hostile attribution of intent (Dodge, Malone, Lansford, Sorbring, Skinner, Tapanya & Pastorelli, 2015). The perception of a person's behaviour as intentionally harmful can, in turn, make these individuals more susceptible to react more aggressively (Tuente et al., 2019).

Consistent with a model of childhood developmental influences and the contextual scenarios of current life (Martin & Martin, 2002), adolescents may become habituated towards using aggression to resolve challenges and accomplish objectives, especially in hostile circumstances (Mumford, Taylor, Berg, Liu, & Miesfeld, 2019). While individuals may exhibit aggressive behaviours, there are a range of personal and interpersonal variables that result in different approaches to conflicts given different contextual circumstances (Mumford et al, 2019).

Trauma-related symptoms are considered to be significant risk factors for aggressive behaviour in the general population (Dutton and Karakanta, 2013). Young people with trauma histories experience difficulties recognising, expressing, and understanding their emotions, and exhibit more aggressive and reactive behaviour (Toth, Harris, Goodman, and Cicchetti, 2011).

Self-Image

Esoteric descriptions and changeable terminology has frequently led to concepts of self-image and self-esteem being used synonymously (Butler, 2001, Hanley and Durak, 1988; Hughes, 1984). Further, there has been indiscriminate use of labels such as self-worth, self-concept, self-awareness and self regard (McGuire, 1994). Self-image represents a descriptive act of how an individual *thinks* about themselves, whereas self-esteem implies an evaluative judgement concerning how an individual *feels* about themselves; characterised by the perceived distance between "where I am" and "where I would ideally wish to be" (Butler, 2001; Butler & Green, 1998). A large body of literature suggests that those who experience traumatic events are more likely to exhibit low self-esteem, higher stressful states, challenging behaviours, and use more avoidant coping mechanisms (e.g. Finkelhor, 2009; Fortier, DiLillo, Messman-Moore, Peugh, DeNardi, & Gaffey, 2009; Valerio and Lepper, 2009). Childhood adverse experiences (physical abuse, sexual abuse, emotional abuse) are a robust predictor of low self-esteem (Cardi, Milich, Harris, & Kearns, 2007).

Emotional Intelligence

Emotional intelligence/quotient (EQ) is the ability to monitor one's own and others' feelings and emotions, to discriminate among them, and to use this information to guide one's thinking and actions (Salovey & Mayer, 1994). Emotionally intelligent people have been defined as those who regulate their emotions according to a logically consistent model of emotional functioning (Mayer & Salovey, 1995) EQ is an array of non-cognitive capabilities, competencies and skills that influence one's ability to succeed in coping with environmental demands and pressures (Bar-On, 1997, p.16). Bar-On and Parker (2000) describe the Bar-On model of emotional intelligence as pertaining to "the emotional, personal, and social dimensions of intelligence" (p. 1). EQ comprises abilities related to understanding oneself and others, relating to people, adapting to changing environmental demands, and managing emotions. EQ, based on research on the adult population, shows that it is a protective factor and can buffer against psychological distress (e.g. Hunt, 2004). However, there is little is known regarding the role that EQ might play in influencing such outcomes among traumatised youth (Tolegenova, Jakupov, Cheung Chung, Saduova & Jakupov, 2012).

Resilience

Resilience has been defined as the process of adapting well in the face of adversity, i.e. trauma, tragedy, threats or significant sources of stress, including family and relationship problems, serious health problems or workplace and financial stressors (American Psychological Association, 2006). The operational definition of resiliency has varied considerably over time as hardiness, optimism, competence, self-esteem, social skill, achievement or the absence of pathology in the face of adversity (Prince-Embury, 2007). Zahradnik et al. (2010) sought to examine how the construct of resilience might act as a protective factor, buffering some individuals from the negative mental health consequences of exposure to violence (measured as emotional, physical, and sexual abuse, and witnessing domestic violence). The results show the relationship between exposure to violence and post-traumatic stress disorder (PTSD) to be moderated by resilience, with exposure to violence only predictive of PTSD at lower levels of resilience. A review of childhood trauma literature (Briere and Jordan, 2009) suggests that early maltreatment or adversity has significant impact on the overall mental health status of adults in the general population (e.g., Felitti et al., 1998).

The Concept of Moderating and Mediating Variables

Moderating and mediating variables are variables that influence the relationship between a predictor variable and an outcome variable (Lindley & Walker, 1993). Lindley and Walker (1993) describe both moderators and mediators as a third variable (Z) that influences the relationship between a predictor variable (X) and an outcome variable (Y). The distinction lies with a mediating variable serving as a link or intervening variable between two processes or events, whereby a moderating variable is one that might change the direction or magnitude of the relationship (Lindley & Walker, 1993). Nader (2008) reviews the research on mediating and moderating variables on trauma in children and adolescents. Single characteristics of resilience or vulnerability have been rarely found to exclusively predict their effect. It has been generally argued instead that they combine with each other and with psychological and environmental mediators (e.g., Punamaki, Quota & El-Sarraj, 2001).

Relatively well established mediating variables on the experience of trauma and adversity include such qualities as personal and group motivation, interpersonal relationships, and the youth's or parents' cognitive and emotional styles (Nader, 2008). To illustrate this, if trauma affects self-

esteem, and self-esteem affects competence, under these circumstances self-esteem is a mediating variable between trauma and competence.

Moderating variables serve to alter the impact or outcome of risk or adversity factors by increasing or decreasing individual susceptibility to the harmful effects of a stressor, or by protecting a young person from the full effects of the threat in some way (Masten & Powell, 2003). Haine, Ayers, Sandler, Wolchik & Weyer (2003) describe how moderators can act as stress buffers, or stress exacerbators, in parentally bereaved children. It was suggested that secure infant attachments and supportive care during the first two years of life, and the competence engendered by this, directly increases the capacity for a young person to rebound from maladaptive behaviour patterns (Nader, 2008). Nader (2008) further highlights that some variables will only have an effect of moderation under particular circumstances, for example, Cambodian war refugee youths were found to fare better if they learned to speak English (Masten & Powell, 2003). It would appear therefore that resilience, risk and vulnerability factors work in conjunction as *both* mediating and moderating variables in association with traumatic responses to varying degrees, rather than one or the other exclusively. There is therefore no value in drawing a clear distinction between the

mediating or moderating effect of protective factors examined in the current study, but rather to remain aware of their interaction with each other, together with risk factors for young people in the wider sense.

Avoiding ambiguity with the specific compendium of analytic procedures for conducting moderation or mediation analysis (Baron & Kenny, 1986), the current study aims to determine the role of protective factors in controlling for the relationship between trauma and aggression in adolescents.

Research Questions

With a measurable increase in stress and adversity from one generation to the next, the importance of further research into the resiliency of young people is clear (Goldstein, 2007). This study aims to provide further insight into understanding the relationship between the experience of trauma and the expression of aggression in young people, and the role of different protective factors in controlling this relationship. The specific protective factors of self-image, emotional intelligence, and resilience have been selected for this study due to the suitability of assessment measures used in available archive data (outlined below). Researchers with diverse data sets have been encouraged to examine their data with regard to resilience and factors that might lead to

overcoming childhood adversity (Widom, 2007). Continued research in this area is ultimately valuable in its application to develop effective methods in which a resilient mindset might be instilled in the youth of today. As such, the following research questions will be addressed.

The Relationship between Trauma and Aggression

1. Do levels of trauma symptoms as identified by the Trauma Symptom Checklist for Children (TSCC; Briere, 1996) positively correlate with levels of aspects of aggression as identified by the Aggression Questionnaire (AQ; Buss & Perry, 1992)?

The Role of Protective Factors

2. Do aspects of self-image as identified using the Self Image Profiles (SIP; Butler, 2001) have an effect on the relationship between trauma symptoms as identified by the TSCC (Briere, 1996) and aspects of aggression as identified by the AQ (Buss & Perry, 1992) for young people?

3. Do aspects of emotional intelligence as identified using the Bar-On EQ-i:YV (Bar-On & Parker, 2000) have an effect on the relationship between trauma symptoms as identified by the TSCC (Briere, 1996) and aspects of

aggression as identified by the AQ (Buss & Perry, 1992) for young people?

4. Do aspects of resiliency as identified using the Resiliency Scales for Children and Adolescents (RSCA; Prince-Embury, 2007) have an effect on the relationship between trauma symptoms as identified by the TSCC (Briere, 1996) and aspects of aggression as identified by the AQ (Buss & Perry, 1992) for young people?

The TSCC and AQ share a measure of anger (ANG) as a common subscale and the opportunity will be taken to establish consistency between the scales of indicated risk levels within subjects. The ANG subscale of the TSCC is designed to indicate the extent of angry thoughts, feelings and behaviours reported by the child (Briere et al., 2001). The ANG subscale of the AQ includes seven items that describe aspects of anger related to arousal and sense of control (Buss & Perry, 1991).

5. Is there a positive correlation between the anger scale of the TSCC (Briere et al., 2001) and the anger scale of the AQ (Buss & Perry, 1991); thus demonstrating the scales as a consistent measure of anger?

Methodology

Sample

Archival data held by Psychological Consultancy Services were analysed in the present study. These data were collected over the past ten years as part of the What Works Programme, which aims to deliver effective assessments and conduct research that can inform service improvement for residential care settings. A total of 983 young people with a range of social, emotional and behavioural difficulties between the ages of nine and 17 were included in the study. The mean age was 14 years old (*SD* = 1.49). There is general agreement that quantitative research is reliable with young people from the age of seven, assuming the questionnaires have been tailored to this population (Borgers & Hox, 2000), which all included measures have been. The gender balance was 66% male and 34% female. Participants included both residentially and day education placed young people across six residential schools in Scotland. Placing local authorities and placement providers were informed that the data collected would be used for care and education planning purposes and potential research. There is less historical data for the RSCA due to the comparatively recent publication of the assessment (2007).

The total number of participants ranges from approximately 70 to 210 for each of the assessment tools.

Materials

The archival data consisted of scores from five assessment measures that were used, namely, the TSCC (Briere, 1996; see Appendix O), AQ (Buss & Warren, 2000; see Appendix P), SIP (Butler, 2001; see Appendix Q), Bar-On EQ-i:YV (Bar-On & Parker, 2000; see Appendix R), and RSCA (Prince-Embury, 2007; see Appendix S). All measures have been shown to have adequate psychometric properties. A full description of each measure used, including their reliability and subscales, are detailed in the respective appendices.

Research Question 1

1. Do levels of trauma symptoms as identified by the Trauma Symptom Checklist for Children (TSCC; Briere, 1996) positively correlate with levels of aspects of aggression as identified by the Aggression Questionnaire (AQ; Buss & Perry, 1992)?

Data were held on 153 participants, using the measures needed to address this research question. Pearson product-moment correlation could not be used to ascertain the relationship between trauma and aggression as tests of

normality showed that the data was not normally distributed (Appendix T). As a non-parametric equivalent, Spearman's rho was used instead. The one-tailed option was selected given that the expected direction of positive correlation is stated in Research Question 1.

Research Questions 2 – 4

To explore whether aggression can be predicted by particular aspects of trauma, controlling for each of the protective factors of interest (self-image, emotional intelligence, and resilience), multiple linear regression was used. 52 participants data remained relevant for Research Questions 2 to 4.

Research Question 5

To explore whether there is a positive correlation between the anger scale of the TSCC (Briere et al., 2001) and the anger scale of the AQ (Buss & Perry, 1991) Spearman's rho was used as per Research Question 1. The one-tailed option was selected given that the expected direction of positive correlation is stated in Research Question 5.

Ethical Considerations

Archival data was used and as such no disruption to normal organisational functioning occurred as a result of the study. Full authorisation has been granted by Psychological Consultancy Services (PCS) to utilise the data collected for the purposes of this research (Appendix U). Local authorities and placement providers (acting as legal guardians) were made aware of the purpose of data collected. PCS reserve the right to share this information for research and development as necessary. The instructions for administration and scoring of the assessments tools were followed according to the respective manuals. Care has been taken to ensure that data is treated as confidential and anonymous in line with the Data Protection Act (1998). Electronic files were saved on a password protected computer and paperwork has been locked in a secure filing cabinet. Ethical approval for the study was granted by the University of Nottingham Ethics Committee (See Appendix V for letter).

Results

All statistics were performed using SPSS version 22. The raw scores for each young person assessed were converted to t-scores using the respective manuals prior to data analysis. With the current model looking for significant interaction between the scales on independent assessment instruments, this was tested through performing correlations, and multiple regressions.

1. In order to determine whether levels of trauma symptoms positively correlate with levels of aspects of aggression, a Spearman's rho correlation was conducted. The results of this analysis are presented in Table 7.

Table 7. Correlation Matrix of Trauma Symptoms and Aspects of Aggression.

	Anxiety (TSCC)	**Depression (TSCC)**	**Anger (TSCC)**	**PTS (TSCC)**	**Dissociation (TSCC)**	**Sexual Concerns (TSCC)**	**Physical Aggression (AQ)**	**Verbal Aggression (AQ)**	**Anger (AQ)**	**Hostility (AQ)**	**Indirect Aggression (AQ)**
Anxiety (TSCC)	-	**.740****	**.452****	**.760****	**.592****	**.458****	**.173***	**.159***	**.299****	**.448****	**.178***
Depression (TSCC)		-	**.528****	**.767****	**.651****	**.434****	**.217****	**.261****	**.399****	**.552****	**.255****
Anger (TSCC)			-	**.500****	**.596****	**.485****	**.571****	**.526****	**.535****	**.467****	**.465****
PTS				-	**.681****	**.535****	**.202****	**.265****	**.386****	**.570****	**.266****

(TSCC)							
Dissociation (TSCC)	-	**.485****	**.274****	**.364****	**.402****	**.498****	**.318****
Sexual Concerns (TSCC)		-	**.164***	**.200****	**.186***	**.346****	**.168***
Physical Aggression (AQ)			-	**.633****	**.664****	**.428****	**.538****
Verbal Aggression (AQ)				-	**.627****	**.512****	**.609****

Anger (AQ)	-	**.563****	**.518****
Hostility (AQ)		-	**.539****
Indirect Aggression (AQ)			-

Note. *p < .05; **p < .01

As can be observed in Table 7, each trauma symptom was significantly positively correlated with all aspects of aggression. The results suggest that as the presence of trauma symptoms increase so too do aspects of aggression. This addresses research question 1.

Due to multiple analyses being conducted on the same dataset, the Bonferroni adjustment was applied such that $p < .003$ was considered statistically significant. When the adjustment was applied Anxiety was no longer significantly correlated with Physical, Verbal or Indirect Aggression; Post Traumatic Stress was no longer significantly correlated with Physical Aggression; and Sexual Concerns were no longer correlated with Anger, Physical, Verbal and Indirect Aggression.

The Relationship between Anxiety and Aggression

Anxiety was positively correlated with Anger ($r_s = .299$, $p < .01$), and Hostility ($r_s = .448$, $p < .01$). This indicates that as children's anxiety increases, their levels of anger and hostility also increase.

The Relationship between Depression and Aggression

Depression was positively correlated with Physical Aggression ($r_s = .217$, $p < .01$), Verbal Aggression ($r_s = .261$, $p < .01$),

Anger (r_s = .399, p < .01), Hostility (r_s = .552, p < .01), and Indirect Aggression (r_s = .255, p < .01). This indicates that as children's depression increases, their levels of physical aggression, verbal aggression, anger, hostility, and indirect aggression also increase.

The Relationship between Anger and Aggression

Anger (TSCC) was positively correlated with Physical Aggression (r_s = .571, p < .01), Verbal Aggression (r_s = .526, p < .01), Anger (AQ) (r_s = .535, p < .01), Hostility (r_s = .467, p < .01), and Indirect Aggression (r_s = .465, p < .01). This indicates that as children's anger increases, their levels of physical aggression, verbal aggression, hostility, and indirect aggression also increase.

This addresses research question 5; demonstrating the Anger subscales of the TSCC and AQ as consistent measures of anger.

The Relationship between Post Traumatic Stress and Aggression

Post Traumatic Stress was positively correlated with Verbal Aggression (r_s = .265, p < .01), Anger (r_s = .386, p < .01), Hostility (r_s = .570, p < .01), and Indirect Aggression (r_s = .266, p < .01). This indicates that as children's post traumatic

stress increases, their levels of verbal aggression, anger, hostility, and indirect aggression also increase.

The Relationship between Dissociation and Aggression

Dissociation was positively correlated with Physical Aggression (r_s = .274, p < .01), Verbal Aggression (r_s = .364, p < .01), Anger (r_s = .402, p < .01), Hostility (r_s = .498, p < .01), Indirect Aggression (r_s = .318, p < .01). This indicates that as children's dissociation increases, their levels of physical aggression, verbal aggression, anger, hostility, and indirect aggression also increase.

The Relationship between Sexual Concerns and Aggression

Sexual Concerns was positively correlated with Hostility (r_s = .346, p < .01). This indicates that as children's sexual concerns increase, their levels of hostility also increase.

The Role of Protective Factors

Trauma Symptoms, Self-Image and Physical Aggression

Multiple linear regression was used to establish whether Physical Aggression can be predicted by aspects of trauma when taking into consideration aspects of self-image. The results showed a significant model ($F(8,91) = 11.68$, $p < .01$) which explained 46% of the variance (Adjusted $R^2 = .46$). This relates to research question 2.

Table 8. Coefficient output for the relationship of trauma symptoms and self-image on Physical Aggression.

	b	**SE**	***β***
(Constant)	24.778	6.059	
Anxiety (TSCC)	.043	.148	.043
Depression (TSCC)	.086	.122	.088
Anger (TSCC)	.768	.114	**.725****
Post Traumatic Stress (TSCC)	-.014	.131	-.015
Dissociation (TSCC)	-.318	.129	**-.324***
Sexual Concerns (TSCC)	-.101	.079	-.134
Positive Self Image (SIP)	-.036	.067	-.042
Negative Self Image (SIP)	.240	.079	**.261****

Note. **p < .05; **p < .01*

Table 8 shows three of the variables significantly predict Physical Aggression. When the Bonferroni adjustment was applied such that p < .003 was considered significant, the effect of Dissociation was no longer statistically significant.

As Anger increases by one standard deviation, Physical Aggression increases by .725 standard deviations (β = .725, p < .01). As Negative Self-Image increases by one standard deviation, Physical Aggression increases by .261 standard deviations (β = .261, p < .01). This indicates that as children's anger or negative self-image increases, their level of physical aggression also increases.

Trauma Symptoms, Self-Image and Verbal Aggression

Multiple linear regression was used to establish whether Verbal Aggression can be predicted by aspects of trauma when taking into consideration aspects of self-image. The results showed a significant model ($F(8,91) = 7.44$, p < .01) which explained 34% of the variance (Adjusted R^2 = .34). This relates to research question 2.

Table 9. Coefficient output for the relationship of trauma symptoms and self-image on Verbal Aggression.

	b	**SE**	***β***
(Constant)	26.299	6.170	
Anxiety (TSCC)	-.328	.150	**-.359***
Depression (TSCC)	.105	.124	.116
Anger (TSCC)	.435	.116	**.446****
Post Traumatic Stress (TSCC)	.154	.134	.185
Dissociation (TSCC)	.002	.132	.003
Sexual Concerns (TSCC)	-.022	.080	-.032
Positive Self Image (SIP)	.011	.068	.013
Negative Self Image (SIP)	.267	.080	**.316****

Note. *$p < .05$; **$p < .01$

Table 9 shows three of the variables significantly predict Verbal Aggression. When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, only the effect of Anger remained significant.

As Anger increases by one standard deviation, Verbal Aggression increases by .446 standard deviations ($\beta = .446$, $p < .01$). This indicates that as children's anger increases,

their level of verbal aggression also increases, when taking into consideration aspects of self-image.

Trauma Symptoms, Self-Image and Anger

Multiple linear regression was used to establish whether Anger can be predicted by aspects of trauma when taking into consideration aspects of self-image. The results showed a significant model ($F(8,91) = 11.04$, $p < .01$) which explained 45% of the variance (Adjusted $R^2 = .45$). This relates to research question 2.

Table 10. Coefficient output for the relationship of trauma symptoms and self-image on Anger.

	b	**SE**	***β***
(Constant)	25.377	5.673	
Anxiety (TSCC)	-.045	.138	-.049
Depression (TSCC)	.205	.114	.226
Anger (TSCC)	.479	.107	**.490*** **
Post Traumatic Stress (TSCC)	.255	.123	**.304***
Dissociation (TSCC)	-.272	.121	**-.300***
Sexual Concerns (TSCC)	-.167	.074	**-.240***
Positive Self Image (SIP)	-.007	.062	-.008
Negative Self Image (SIP)	.204	.074	**.242*** **

Note. **p < .05; **p < .01*

Table 10 shows five of the variables significantly predict Anger (AQ). When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, only the effect of Anger (TSCC) remained significant. As Anger (TSCC) increases by one standard deviation, Anger (AQ) increases by .490 standard deviations ($\beta = .490$, $p < .01$).

Trauma Symptoms, Self-Image and Hostility

Multiple linear regression was used to establish whether Hostility can be predicted by aspects of trauma when taking into consideration aspects of self-image. The results showed a significant model ($F(8,91) = 8.56$, $p < .01$) which explained 38% of the variance (Adjusted $R^2 = .38$). This relates to research question 2.

Table 11. Coefficient output for the relationship of trauma symptoms and self-image on Hostility.

	b	**SE**	***β***
(Constant)	18.917	7.039	
Anxiety (TSCC)	-.326	.172	-.304
Depression (TSCC)	.363	.142	**.343***
Anger (TSCC)	.029	.132	.025
Post Traumatic Stress (TSCC)	.414	.152	**.423***
Dissociation (TSCC)	.168	.150	.159
Sexual Concerns (TSCC)	-.005	.092	-.006
Positive Self Image (SIP)	-.077	.077	-.082
Negative Self Image (SIP)	.070	.092	.071

Note. **p < .05; **p < .01*

Table 11 shows two of the variables significantly predict Hostility; Depression and Post Traumatic Stress. When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, neither result remained significant.

Trauma Symptoms, Self-Image and Indirect Aggression

Multiple linear regression was used to establish whether Indirect Aggression can be predicted by aspects of trauma when taking into consideration aspects of self-image. The results showed a significant model ($F(8,91) = 2.85$, $p < .01$) which explained 13% of the variance (Adjusted $R^2 = .13$). This relates to research question 2.

Table 12. Coefficient output for the relationship of trauma symptoms and self-image on Indirect Aggression.

	b	SE	β
(Constant)	30.716	7.069	
Anxiety (TSCC)	-.133	.172	-.146
Depression (TSCC)	.090	.142	.100
Anger (TSCC)	.256	.133	.264
Post Traumatic Stress (TSCC)	.202	.153	.243
Dissociation (TSCC)	-.044	.151	-.049
Sexual Concerns (TSCC)	-.049	.092	-.070
Positive Self Image (SIP)	.026	.078	.033
Negative Self Image (SIP)	.134	.092	.160

Note. *$p < .05$; **$p < .01$

Table 12 shows that none of the variables entered into the model significantly predict Indirect Aggression.

Trauma Symptoms, Emotional Intelligence and Physical Aggression

Multiple linear regression was used to establish whether Physical Aggression can be predicted by aspects of trauma when taking into consideration aspects of emotional intelligence. The results showed a significant model

($F(11,84) = 9.47$, $p < .01$) which explained 50% of the variance (Adjusted $R^2 = .50$). This relates to research question 3.

Table 13. Coefficient output for the relationship of trauma symptoms and emotional intelligence on Physical Aggression.

	b	**SE**	***β***
(Constant)	55.573	13.480	
Anxiety (TSCC)	.046	.163	.042
Depression (TSCC)	-.099	.138	-.096
Anger (TSCC)	.760	.128	**.688****
Post Traumatic Stress (TSCC)	.027	.136	.028
Dissociation (TSCC)	-.103	.133	-.101
Sexual Concerns (TSCC)	-.176	.082	**-.228***
Intrapersonal (EQ)	-.009	.063	-.011
Interpersonal (EQ)	.048	.071	.064
Stress Management (EQ)	-.188	.074	**-.236***
Adaptability (EQ)	.002	.069	.002
General Mood (EQ)	-.106	.066	-.150

Note. *$p < .05$; **$p < .01$

Table 13 shows three of the variables significantly predict Physical Aggression. When the Bonferroni adjustment was

applied such that p < .003 was considered significant, only Anger remained significant. As Anger increases by one standard deviation, Physical Aggression increases by .688 standard deviations (β = .688, p < .01).

This indicates that as children's anger increases, their level of physical aggression also increases when taking into consideration aspects of emotional intelligence.

Trauma Symptoms, Emotional Intelligence and Verbal Aggression

Multiple linear regression was used to establish whether Verbal Aggression can be predicted by aspects of trauma when taking into consideration aspects of emotional intelligence. The results showed a significant model (F(11,84) = 3.80, p < .01) which explained 25% of the variance (Adjusted R^2 = .25). This relates to research question 3.

Table 14. Coefficient output for the relationship of trauma symptoms and emotional intelligence on Verbal Aggression.

	b	**SE**	***β***
(Constant)	49.900	14.555	
Anxiety (TSCC)	-.241	.176	-.251
Depression (TSCC)	-.056	.149	-.062
Anger (TSCC)	.363	.139	**.372*** **
Post Traumatic Stress (TSCC)	.123	.146	.144
Dissociation (TSCC)	.095	.143	.105
Sexual Concerns (TSCC)	-.041	.088	-.060
Intrapersonal (EQ)	.025	.069	.034
Interpersonal (EQ)	.014	.076	.020
Stress Management (EQ)	-.173	.080	**-.247***
Adaptability (EQ)	.133	.075	.206
General Mood (EQ)	-.090	.071	-.143

Note. **p < .05; **p < .01*

Table 14 shows two of the variables significantly predict Verbal Aggression. When the Bonferroni adjustment was applied such that p < .003 was considered significant, neither variable remained significant.

Trauma Symptoms, Emotional Intelligence and Anger

Multiple linear regression was used to establish whether Anger can be predicted by aspects of trauma when taking into consideration aspects of emotional intelligence. The results showed a significant model ($F(11,84) = 10.62$, $p < .01$) which explained 53% of the variance (Adjusted $R^2 = .53$). This relates to research question 3.

Table 15. Coefficient output for the relationship of trauma symptoms and emotional intelligence on Anger.

	b	**SE**	***β***
(Constant)	80.494	11.351	
Anxiety (TSCC)	-.090	.137	-.096
Depression (TSCC)	-.049	.116	-.055
Anger (TSCC)	.319	.108	**.333*** **
Post Traumatic Stress (TSCC)	.299	.114	**.356*** **
Dissociation (TSCC)	-.023	.112	-.026
Sexual Concerns (TSCC)	-.191	.069	**-.285*** **
Intrapersonal (EQ)	-.082	.053	-.115
Interpersonal (EQ)	.031	.060	.048
Stress Management (EQ)	-.271	.063	**-.392*** **
Adaptability (EQ)	.020	.058	.032
General Mood (EQ)	-.118	.056	**-.191*** *

Note. **p < .05; **p < .01*

Table 15 shows five of the variables significantly predict Anger. When the Bonferroni adjustment was applied such that p < .003 was considered significant, only Stress Management remained significant. As Stress Management increases by one standard deviation, Anger decreases by .392 standard deviations (β = -.392, p < .01). This indicates that

as children's ability to manage stress increases, their level of anger decreases.

Trauma Symptoms, Emotional Intelligence and Hostility

Multiple linear regression was used to establish whether Hostility can be predicted by aspects of trauma when taking into consideration aspects of emotional intelligence. The results showed a significant model ($F(11,84) = 7.56$, $p < .01$) which explained 43% of the variance (Adjusted $R^2 = .43$). This relates to research question 3.

Table 16. Coefficient output for the relationship of trauma symptoms and emotional intelligence on Hostility.

	b	**SE**	***β***
(Constant)	28.614	14.781	
Anxiety (TSCC)	-.281	.179	-.250
Depression (TSCC)	.230	.151	.215
Anger (TSCC)	.051	.141	.045
Post Traumatic Stress (TSCC)	.264	.149	.265
Dissociation (TSCC)	.294	.146	**.277***
Sexual Concerns (TSCC)	.005	.090	.006
Intrapersonal (EQ)	.122	.070	.143
Interpersonal (EQ)	.113	.078	.146
Stress Management (EQ)	-.039	.082	-.048
Adaptability (EQ)	-.019	.076	-.025
General Mood (EQ)	-.263	.072	**-.359****

Note. *$p < .05$; **$p < .01$

Table 16 shows two of the variables significantly predict Hostility. When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, only General Mood remained significant. As General Mood increase by one standard deviation, Hostility decreases by .359 standard deviations (β = -.359, $p < .01$). This indicates that as

children's general mood increases, their level of hostility decreases. The remaining variables entered into the model did not significantly predict Hostility.

Trauma Symptoms, Emotional Intelligence and Indirect Aggression

Multiple linear regression was used to establish whether Indirect Aggression can be predicted by aspects of trauma when taking into consideration aspects of emotional intelligence. The results showed a significant model ($F(11,84) = 3.21$, $p < .01$) which explained 20% of the variance (Adjusted $R^2 = .20$). This relates to research question 3.

Table 17. Coefficient output for the relationship of trauma symptoms and emotional intelligence on Indirect Aggression.

	b	**SE**	***β***
(Constant)	46.116	14.878	
Anxiety (TSCC)	.018	.180	.019
Depression (TSCC)	-.204	.152	-.225
Anger (TSCC)	.337	.142	**.347***
Post Traumatic Stress (TSCC)	.171	.150	.202
Dissociation (TSCC)	.069	.147	.077
Sexual Concerns (TSCC)	-.109	.090	-.162
Intrapersonal (EQ)	-.014	.070	-.019
Interpersonal (EQ)	.034	.078	.052
Stress Management (EQ)	-.095	.082	-.136
Adaptability (EQ)	.136	.076	.211
General Mood (EQ)	-.133	.073	-.214

Note. *$p < .05$*

Table 17 shows one of the variables, General Mood, to significantly predict Indirect Aggression. When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, no variable remained significant.

Trauma Symptoms, Resilience and Physical Aggression

Multiple linear regression was used to establish whether Physical Aggression can be predicted by aspects of trauma when taking into consideration aspects of resilience. The results showed a significant model ($F(9,57) = 4.83$, $p < .01$) which explained 34% of the variance (Adjusted $R^2 = .34$). This relates to research question 4.

Table 18. Coefficient output for the relationship of trauma symptoms and resilience on Physical Aggression.

	b	**SE**	***β***
(Constant)	32.453	8.242	
Anxiety (TSCC)	.053	.182	.061
Depression (TSCC)	-.082	.156	-.090
Anger (TSCC)	.576	.149	**.604*** **
Post Traumatic Stress (TSCC)	.036	.173	.046
Dissociation (TSCC)	-.205	.164	-.228
Sexual Concerns (TSCC)	-.033	.108	-.046
Sense of Mastery (RSCA)	-.059	.133	-.063
Sense of Relatedness (RSCA)	.001	.135	.001
Emotional Reactivity (RSCA)	.178	.093	.260

Note ***p < .01*

Table 18 shows one of the variables, Anger, significantly predicts Physical Aggression. When the Bonferroni adjustment was applied such that p < .003 was considered significant, this variable remained significant. As Anger increases by one standard deviation, Physical Aggression increases by .604 standard deviations (β = .604, p < .01). This indicates that as children's anger increases, their level of physical aggression also increases when taking into consideration aspects of resilience.

Trauma Symptoms, Resilience and Verbal Aggression

Multiple linear regression was used to establish whether Verbal Aggression can be predicted by aspects of trauma when taking into consideration aspects of resilience. The results showed a significant model (F(9,57) = 4.68, p < .01) which explained 33% of the variance (Adjusted R^2 = .33). This relates to research question 4.

Table 19. Coefficient output for the relationship of trauma symptoms and resilience on Verbal Aggression.

	b	**SE**	***β***
(Constant)	37.141	7.731	
Anxiety (TSCC)	-.565	.171	**-.706****
Depression (TSCC)	.049	.146	.057
Anger (TSCC)	.324	.139	**.365***
Post Traumatic Stress (TSCC)	.250	.162	.338
Dissociation (TSCC)	.269	.154	.321
Sexual Concerns (TSCC)	.003	.101	.004
Sense of Mastery (RSCA)	.058	.125	.067
Sense of Relatedness (RSCA)	-.188	.127	-.210
Emotional Reactivity (RSCA)	.126	.087	.198

Note. *$p < .05$; **$p < .01$

Table 19 shows two of the variables significantly predict Verbal Aggression. When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, only Anxiety remained significant. As Anxiety increases by one standard deviation, Verbal Aggression decreases by .706 standard deviations ($\beta = .706$, $p < .01$). This indicates that as children's anxiety increases, their level of verbal aggression decreases.

Trauma Symptoms, Resilience and Anger

Multiple linear regression was used to establish whether Anger can be predicted by aspects of trauma when taking into consideration aspects of resilience. The results showed a significant model ($F(9,57) = 11.49$, $p < .01$) which explained 59% of the variance (Adjusted $R^2 = .59$). This relates to research question 4.

Table 20. Coefficient output for the relationship of trauma symptoms and resilience on Anger.

	b	**SE**	***β***
(Constant)	28.542	6.267	
Anxiety (TSCC)	-.124	.139	-.151
Depression (TSCC)	.025	.118	.028
Anger (TSCC)	.281	.113	**.307***
Post Traumatic Stress (TSCC)	.269	.131	**.353***
Dissociation (TSCC)	-.116	.124	-.135
Sexual Concerns (TSCC)	-.146	.082	-.208
Sense of Mastery (RSCA)	-.140	.101	-.156
Sense of Relatedness (RSCA)	.084	.103	.091
Emotional Reactivity (RSCA)	.362	.071	**.550****

Note. *$p < .05$; **$p < .01$

Table 20 shows three of the variables significantly predict Anger. When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, only Emotional Reactivity remained significant. As Emotional Reactivity increase by one standard deviation, Anger increases by .550 standard deviations ($\beta = 550$, $p < .01$). This indicates that as children's emotional reactivity increases, their level of anger (AQ) also increases.

Trauma Symptoms, Resilience and Hostility

Multiple linear regression was used to establish whether Hostility can be predicted by aspects of trauma when taking into consideration aspects of resilience. The results showed a significant model ($F(9,57) = 6.26$, $p < .01$) which explained 42% of the variance (Adjusted $R^2 = .42$). This relates to research question 4.

Table 21. Coefficient output for the relationship of trauma symptoms and resilience on Hostility.

	b	**SE**	***β***
(Constant)	34.454	9.270	
Anxiety (TSCC)	-.564	.205	**-.549***
Depression (TSCC)	.153	.175	.140
Anger (TSCC)	.062	.167	.054
Post Traumatic Stress (TSCC)	.576	.194	**.607***
Dissociation (TSCC)	.245	.184	.228
Sexual Concerns (TSCC)	.023	.121	.026
Sense of Mastery (RSCA)	-.248	.149	-.223
Sense of Relatedness (RSCA)	-.133	.152	-.116
Emotional Reactivity (RSCA)	.107	.105	.131

Note. **p < .05*

Table 21 shows two of the variables significantly predict Hostility. When the Bonferroni adjustment was applied such that p < .003 was considered significant, only Post Traumatic Stress remained significant. As Post Traumatic Stress increases by one standard deviation, Hostility increases by .607 standard deviations (β = 607, p < .05). This indicates that as children's post traumatic stress increases, their level of hostility increases.

Trauma Symptoms, Resilience and Indirect Aggression

Multiple linear regression was used to establish whether Indirect Aggression can be predicted by aspects of trauma when taking into consideration aspects of resilience. The results showed a significant model (F(9,57) = 1.80, p < .01) which explained 10% of the variance (Adjusted R^2 = .10). This relates to research question 4.

Table 22. Coefficient output for the relationship of trauma symptoms and resilience on Indirect Aggression.

	b	**SE**	***β***
(Constant)	36.138	9.236	
Anxiety (TSCC)	-.163	.204	-.198
Depression (TSCC)	-.108	.175	-.123
Anger (TSCC)	.165	.167	.181
Post Traumatic Stress (TSCC)	.226	.194	.297
Dissociation (TSCC)	.023	.183	.027
Sexual Concerns (TSCC)	-.042	.121	-.061
Sense of Mastery (RSCA)	-.017	.149	**-.019***
Sense of Relatedness (RSCA)	.043	.152	.047
Emotional Reactivity (RSCA)	.213	.105	.326

Note. *$p < .05$*

Table 22 shows one of the variables significantly predict Indirect Aggression. When the Bonferroni adjustment was applied such that $p < .003$ was considered significant, no variables remained significant.

Retrospective Power Analyses

Two retrospective power analyses were conducted using G*Power (Faul, Erdfelder, Lang, & Buchner, 2007), where

power was set at 0.8, significance was set at 0.05, and a small effect size was set at 0.1 (for the correlations) and 0.02 (for the regression). In terms of the correlations, 616 participants were needed for a small effect, while with regard to the regression, 485 participants were needed for a small effect.

Discussion

This study aimed to provide insight into the relationship between the experience of trauma and the expression of aggression in young people, and the role of protective factors (self-image, emotional intelligence, and resilience) in controlling this relationship.

The Relationship between Trauma and Aggression

The majority of trauma symptoms on the TSCC were positively correlated with aspects of aggression measured by the AQ. This suggests that as children's trauma symptomatology increases so too do their levels of aggression.

Specifically, the results show that increasing levels of anxiety are associated with higher levels of anger, hostility and indirect aggression in young people. Increasing symptomatology for PTS is associated with higher levels of verbal aggression, anger, hostility and indirect aggression. Higher levels of sexual concerns were only predictive of higher levels of hostility. Finally, levels of depression or dissociation are found to both be predictive of all aspects of aggression.

These findings are in line with the literature linking post-traumatic stress to increased levels of aggression (Marshall,

Panuzio, & Taft, 2005; Taft, Watkins, Stafford, Street, & Monson, 2011).

However, not all individuals who experience a trauma become violent, so understanding what protective factors influence aggression expression can inform both prevention and treatment of aggression (Miles, Tharp, Stanford, Sharp, Menefee, & Kent, 2015).

The Role of Protective Factors

Self-Image

Aspects of self-image were found to have an effect on the relationship between trauma symptoms and aspects of aggression for children accounting for between 13% (Indirect Aggression) and 46% (Physical Aggression) of the variance.

As anger or negative self-image increases, so does physical and verbal aggression. As negative self-image increases, so does physical aggression.

No trauma symptoms were found to predict hostility, verbal or indirect aggression when taking into consideration aspects of self-image.

Emotional Intelligence

Aspects of emotional intelligence were found to have an effect on the relationship between trauma symptoms and aspects of aggression, accounting for between 20% (Indirect Aggression) and 53% (Anger) of the variance.

As anger increases, so too do levels of physical aggression. As stress management increases, levels of physical aggression decrease. As stress management increases, levels of anger decrease. As general mood increases, levels of hostility decrease.

No trauma symptoms were found to predict verbal or indirect aggression when taking into consideration aspects of emotional intelligence.

Resilience

Aspects of resilience were found to have an effect on the relationship between trauma symptoms and aspects of aggression, accounting for between 10% (Indirect Aggression) and 59% (Anger) of the variance.

As anger increases, so do levels of physical aggression. As anxiety increases, levels of verbal aggression decrease. As

emotional reactivity increases, levels of anger also increase. As post traumatic stress increases, so does hostility.

No trauma symptoms were found to predict indirect aggression when taking into consideration aspects of resilience.

Anger as measured by the TSCC and AQ

A positive correlation was established between the anger scale of the TSCC and the anger scale of the AQ, thus demonstrating the scales as a consistent measure of anger.

Limitations

Limitations of the current study include the relatively small sample sizes for quantitative analyses to determine the correlation between trauma and aggression (n=153; Research Question 1) and the effect of protective factors on this relationship (n=52; Research Questions 2 – 4). Two retrospective power analyses show the data of this study to be underpowered. In terms of the correlations, 616 participants were needed for a small effect, while with regard to the regression, 485 participants were needed for a small effect.

Given the nature of the population, larger sample sizes will only be possible through longitudinal data collection. The current study does not provide gender specific information

about the impact of trauma on levels of aggression (Research Question 1). However, despite the skewed gender divide (66% male, 34% female), there is potential for this to be revisited with the relevant sample size (n=153).

The sample used was one of convenience given the accessible data, and may have limited generalisability beyond the residential care and specialist day-education population. Non-clinical samples with different educational backgrounds, and clinical samples, such as young people living at home being treated for PTSD, should be studied in the future.

Clinical Application

The Adverse Childhood Experiences (ACEs; Felitti, Anda, Nordenberg, Williamson, Spitz, Edwards, Koss, & Marks, 1998) framework provides an explanatory model for the link between traumatic experiences in childhood and negative outcomes in later life. Research on ACEs has identified a correlation between exposure to ACEs and premature mortality (e.g. Kelly-Irving, Lepage, Dedieu, Bartley, Blane, Grosclaude, Lang & Delpierre, 2013). People with experience of six or more ACEs have on average a 20 year lower life expectancy than those with no ACEs (Brown, Anda, Tiemeier, Felitti, Edwards, Croft & Giles, 2009). Bellis et al (2017) show ACEs related higher usage of healthcare services as evident from 18 years

of age and continued throughout adult life. The development of trauma-informed health and social care services are key to reducing health harming behaviours. It follows that prevention, early intervention and moderation of the effects of childhood trauma is central to reducing health care service demand in the future, and insight as to the interactive effect of protective factors is therefore important.

Furnivall, McKenna, McFarlane. & Grant (2012) highlight how trauma-informed training and interventions that support health and care staff to understand the meaning of children's behaviour, whilst recognising its impact on themselves, are associated with positive outcomes for children. (e.g. Becker-Weidman & Hughes, 2008). Caregivers that respond to children and adolescents in an attuned and sensitive way that recognises their developmental, rather than chronological, age are better able to help them to repair emotional and neurological injuries (e.g. Cameron & Maginn, 2008). The professional development of staff providing health and social care to children should be informed by developments in our understanding of the role of protective factors in moderating the effects of trauma. Understanding the relative contribution of these psychological buffers, and practical strategies on how they might be developed or enhanced at the level of the individual would be beneficial.

Implications for Future Research

The significant contribution of self-image, emotional intelligence and resilience in mitigating the impact of traumatic symptoms on aggression can only tell us so much. Future research could focus on the variance accounted for by protective factors on multiple risk factors associated with trauma other than aggression. For example, many of the co-morbid diagnoses to PTSD such as attention deficit hyperactive disorder (ADHD) or depression.

The protective factors considered in the study were selected for convenience due to the availability of archival data. Future research could establish the effect of additional protective factors on the relationship between trauma and aggression.

Research has demonstrated gender differences in trauma exposure and trauma-related symptoms, including aggression, in adults (Kimerling, Allen & Duncan, 2018). However, gender discrepancies have not yet been well established in the context of young people (Wamser-Nanney & Cherry, 2018). Future research would benefit from a focus on gender differences in terms of young people's levels and patterns of trauma-related symptoms.

Conclusion

The results support a positive correlation between traumatic experience and aggressive behaviour in adolescents. The hypothesis that individual protective factors of self-image, emotional intelligence, and resilience have an effect on this relationship is supported by their significant contribution in predicting aggression.

Discussions of resilience are typically framed with reference to risk, vulnerability and protective factors. It is the complex interplay of these factors over time that determines children's outcomes. Further research is required to understand their interactive effects and underlying mechanisms in buffering the effects of trauma.

Chapter Six

General Discussion

Chapter Six is the final chapter, which synthesises all aspects of the thesis, discussing each chapter's findings in terms of their implications, limitations, and future research. The aims of the thesis are reviewed in light of the findings and conclusions are made, commenting upon future research and application.

General Discussion

The four aims of this thesis were:

1. To systematically review the effect of eye movement desensitisation and reprocessing (EMDR) on reducing symptoms of post-traumatic stress in children and adolescents
2. To critically evaluate the TSCC as a measure of trauma symptoms in terms of its psychometric properties, and clinical applicability
3. To practically explore the assessment, formulation, and treatment of an adolescent boy with a history of complex trauma displaying aggressive and antisocial behaviour
4. To explore the relationship between trauma and aggression in young people, and the role of protective factors in controlling this relationship.

Findings

The systematic review presented in Chapter Two explored the effect of eye movement desensitisation and reprocessing (EMDR) as a treatment on reducing symptoms of post-traumatic stress in children and adolescents. This was undertaken due to significant limitations in the methodology of the most recent meta-analysis (Moreno-Alcázar et al, 2017),

and recent publication of, by far, the largest relevant RCT to date (de-Roos et al, 2017) which had not previously been included in a systematic review of EMDR.

The findings support the clinical efficacy of EMDR for reducing symptoms of PTSD in children and adolescents; statistically comparable to those outcomes achieved through more commonly used CBT-based treatments. The findings are also suggestive of a promising efficiency for EMDR over CBT therapies, with a trend for similar gains achieved over a shorter duration, and maintained at follow-up. The implication is that EMDR has the potential advantage over CBT, given its equivalent treatment effect requiring fewer resources over a shorter period of time.

A generally positive correlation between publication date and quality scores was noted for the included studies using both the Platinum Standard and Jadad Scale. This may be indicative of the quality of published research increasing, increasingly stringent publication standards, or a higher association of the more recent publications with these quality assessment criteria, particularly the Platinum Standard which has been developed specifically for EMDR studies. Consistent use of an evaluative tool for readers to assess the validity, limitations, and potential generalisability of RCTs exploring the

effects of EMDR would be beneficial. It is suggested that The Platinum Standard may meet this need.

The paucity of RCTs on the effect of EMDR studies, and the large heterogeneity between studies in relation to treatment fidelity and measures used, limit the ability to draw robust conclusions. It is proposed that consistent use of the TSCC as a primary measure in future RCTs would benefit direct comparisons of treatment effect.

Chapter Three provides a critical appraisal of the Trauma Symptom Checklist for Children (TSCC; Briere, 1996). The TSCC is widely used in clinical and research settings to assess PTSD symptoms in youth following traumatic events. The TSCC meets scientific criteria for a psychometric test, including those of test construction, and demonstrates robust properties, reliability, and validity across a range of cross-cultural and clinical settings. The TSCC is therefore a useful tool for psychological assessment and can assist health and social care professionals in treatment planning and symptom monitoring of childhood trauma related symptoms. The brevity of the TSCC and the inclusion of important questions pertaining to sexual concerns contribute to its popularity in clinical and research settings (Sadowski et al, 2000).

The potential effects of trauma must be understood within the larger context of a child's family and social environment. Several assessment strategies are likely to be necessary to capture the many relevant domains of functioning. Future research could therefore explore the benefit of a multi-informant approach when using trauma-related screening tools such as the TSCC with children and adolescents.

Chapter Four reports a case study involving the assessment and treatment of a fourteen year old boy displaying aggressive and antisocial behaviour, with a history of complex trauma. Treatment measures included the TSCC, SIP, Bar-On EQ-i:YV, RSCA and AQ, used to assess risk and protective factors, both prior to and following a twelve session CBT-based treatment programme; R&R2. CBT programmes such as anger management, multimodal interventions and skills training have shown to be effective in reducing aggression (Sukhodolsky, Kassinove, & Gorman, 2004). R&R2 is a manualised cognitive behavioural programme aimed specifically at 13 to 16 year olds who are assessed at risk of reoffending or likely to exhibit antisocial behaviour. The programme was previously demonstrated to improve problem-solving ability, behaviour, criminal attitudes, and the risk of general re-offending in a Scottish residential care setting (Curran and Bull, 2009).

Child X engaged well with the key aspects of the work and the main gains achieved appear to have been (i) the development of pro-social problem solving skills, and (ii) the effectiveness of self-regulation strategies in practice, namely self-talk and deep breathing. Anecdotal evidence from Child X's care and education staff also suggested that his thinking styles became somewhat more prosocial. Child X self-reported having significantly benefitted from the programme through assessment using the Rickter Scale, with 89% progress identified toward his pre-treatment goals. Although Child X's was reassessed following one year in placement as remaining high risk overall for each of the primary measures, there was evidence of some moderation for areas of trauma, emotional intelligence, and resilience.

The author considered the R&R2 programme to be well-structured and readily adaptable for use on an individual basis with Child X. Following case formulation, R&R2 would not have been the priority intervention for Child X, given more suitable alternatives such as the AIM-2, designed to guide the assessment and intervention of young people (aged 12 to 18) who are known to have sexually abused another person. However, the potential for this work to take place was restricted pending the progression of criminal charges against Child X for alleged sexual abuse against his younger siblings.

This is an example of a real-life clinical issue that is not uncommon in residential care settings, where treatment options can be restricted by e.g. pending child protection investigations. The author suggests that in such scenarios, R&R2 may be considered an appropriate programme of intervention for adolescents where cognitive skills such as managing thoughts and emotions, problem solving, consequential thinking and managing conflict are identified treatment needs.

Chapter Five investigates the relationship between trauma and aggression in young people, and the role of protective factors (self-image, emotional intelligence, and resilience) in this relationship. The Archival data from the past decade for a population of youth attending residential schools in Scotland were analysed. The measures used were the TSCC, SIP, Bar-On EQ-i:YV, RSCA and AQ, the same as those employed during the case study in Chapter Four.

The results support a positive correlation between traumatic experience and aggressive behaviour in adolescents. The hypothesis that individual protective factors of self-image, emotional intelligence, and resilience have an effect on this relationship is supported by their significant contribution in predicting aggression.

It is the complex interplay of these protective factors over time that determines children's outcomes. Further research is required to understand their interactive effects and underlying mechanisms in buffering the effects of trauma.

Conclusions

To understand the impact of childhood trauma, this thesis has discussed the nature of childhood adversities, explored symptomatology and provided insight to the nature and effectiveness of assessment measures and treatment modalities. EMDR has been systematically reviewed as an effective treatment for PTSD symptoms in young people, with comparable outcomes to CBT, and some practical advantages over and above. The critical review and clinical use of the TSCC presents an instrument for assessing post-traumatic symptoms with robust psychometric properties, and diverse practical and research applications. The case study of an adolescent boy presenting aggressive and antisocial behaviours illustrates assessment, formulation and cbt application in the field of complex trauma. Finally the research study illustrates the positive correlation between trauma symptoms and aggressive behaviours, whilst exploring the interactive effect of individual protective factors; self-image, emotional intelligence and resilience.

The ultimate aim of this thesis is to help inform the development of trauma-informed health and social care services, subsequently enhancing assessment and treatment provision, and the future life prospects for young people.

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Appendix A: Inclusion/Exclusion Criteria

- **Population/Problem**

Children and adolescents ≤ eighteen years old with exposure to trauma.

- **Intervention**

Eye Movement Desensitisation and Reprocessing (EMDR).

- **Comparison**

Control groups such as; treatment as usual; waiting list or no treatment; pharmacological therapy; or other treatments in children or adolescents who had undergone a traumatic event.

- **Outcome**

The effect of EMDR in reducing symptoms associated with post-traumatic stress.

Publication Types

Only blinded randomised control studies will be included.

Language

No language restrictions will be imposed and attempts will be made to translate findings.

Time Frame

No time restrictions will be imposed.

Exclusion

Narrative reviews, editorials, case studies, commentaries or any other type of opinion papers will be excluded.

Appendix B. The Platinum Standard (PS; Hertlein & Ricci, 2004) for EMDR Studies.

Study	PS #1	PS #2	PS #3	PS #4	PS #5	PS #6	PS #7	PS #8	PS #9	PS #10	PS #11	PS #12	PS #13	Total PS Score

Eye movement desensitization and reprocessing; #1 clearly defined target symptoms (0, no clear diagnosis or symptom definition; 0.5, not all participants meet target symptom criteria; 1.0, all participants met target symptom criteria); #2 reliable and valid measures (0, did not use reliable and valid measures; 0.5, measures used inadequate to measure change; 1.0, reliable, valid, and adequate measures used); #3 use of blind evaluators (0, assessor was therapist; 0.5, assessor was not blind; 1.0, assessor was blind and independent); #4 information regarding an assessor's training (0: no training in administration of instruments used in the study 0.5: training in administration of instruments used in the study 1.0: training with performance supervision, or reliability checks); #5 manualised, replicable and specific treatment (0, treatment was not replicable or specific; 0.5, treatment replicable and specific but not standard EMDR protocol; 1.0, treatment followed EMDR training manual),; #6 random assignment (0, assignment not randomized; 0.5, only one therapist or other semi-randomized designs; 1.0, unbiased assignment to treatment); #7 treatment adherence (0, treatment fidelity poor; 0.5, treatment fidelity variable or self-monitored by therapist only; 1.0, treatment fidelity independently checked and adequate); #8 non-confounded conditions [0, most participants exposed to confounds with no control for variables; 0.5: few participants exposed to confounds with no control for variables1.0, confounds nonexistent or controlled for (e.g., exclusion, matched assignment, etc.)]; #9 use of multimodal measures (0, self-report measures only; 0.5, self-report plus interview or physiological or behavioral measures; 1, self-report plus two or more other types of measures); #10 length of treatment (0, 1–6 sessions; 0.5, 7–10 sessions; 1.0, 11+sessions); #11 level of therapist training (0, no qualifications for treating clinicians provided; 0.5, qualifications for treatment group, clinicians provided; 1.0, qualifications for treatment and comparative group, clinicians provided); #12 use of a control group (0, no use of a wait control/comparison group; 0.5, use of a comparison group but no control; 1.0, use of a no-treatment control group); #13 effect size reporting (0, no effect size reported; 1.0, effect size reported).

Appendix C. Jadad Scale for Randomised Controlled Trials (Jadad et al. 1996).

1. Was the study described as randomised?" (this includes the use of words such as randomly, random, and randomisation)?
2. Was the study described as double-blind?"
3. Was there a description of withdrawals and drop outs?

Study	1. Randomisation	2. Blinding	3. An account of all patients	Total Score (max 5)

Scoring the items

Either give a score of 1 point for each"yes" or 0 points for each "no." There are no in-between marks.

Give 1 additional point if: For question 1, the method to generate the sequence of randomisation was described **and** it was appropriate (table of random numbers, computer generated, etc.)

and/or: If for question 2 the method of double blinding was described and it was appropriate (identical placebo, active placebo, dummy, etc.)

Deduct 1 point if: For question 1, the method to generate the sequence of randomization was described and it was inappropriate (patients were allocated alternately, or according to date of birth, hospital number, etc.)

and/or: For question 2, the study was described as double blind but the method of blinding was inappropriate (e.g., comparison of tablet vs. injection with no double dummy)

Guidelines for Assessment

1. Randomisation

A method to generate the sequence of randomisation will be regarded as appropriate if it allowed each study participant to have the same chance of receiving each intervention and the investigators could not predict which treatment was next. Methods of allocation using date of birth, date of admission, hospital numbers, or alternation should be not regarded as appropriate.

2. Double blinding

A study must be regarded as double blind if the word "double blind" is used. The method will be regarded as appropriate if it is stated that neither the person doing the assessments nor the study participant could identify the intervention being assessed, or if in the absence of such a statement the use of active placebos, identical placebos, or dummies is mentioned.

3. Withdrawals and dropouts

Participants who were included in the study but did not complete the observation period or who were not included in the analysis must be described. The number and the reasons for withdrawal in each group must be stated. If there were no withdrawals, it should be stated in the article. If there is no statement on withdrawals, this item must be given no points.

Appendix D: Data Extraction Form.

General Information	
Author(s) and Year of Publication	
Title	
Citation	
Country of Origin	
Study Characteristics	
Study Aim(s)	
Study Design	
Study Setting	
Population Type	
Inclusion/Exclusion Criteria Met?	**Yes** **No**
Recruitment Procedures Used	
Participant Data	
Sample Size	
Gender	
Mean Age	
Number of participants in each category (i.e. EMDR and control group)	
Exposure	
Child Adolescent Trauma (e.g. single, multiple, natural disaster etc.)	

Outcomes	
Tool(s) used	
The validity/reliability of the tool?	
Follow-up(s) conducted?	**Yes** **No**
Length of follow-up(s)	
Number of participants exposed?	
Number of drop-outs?	
Statistical measure(s) used?	
Statistical results? • **Means** • **Standard Deviations** • **P-Values** • **Confidence Intervals**	

Appendix E. Relevant Publications Excluded.

Publication	Reason for Exclusion
Scheck et al. (1998)	Age range (too old), 16-25 (M=20.93)
Wanders et al. (2008)	Participants; trauma exposure not a requirement
Kemp et al. (2009)	Study design; not RCT
Trentini et al. (2015)	Study design; not RCT
Hassanzadeh-Moghaddam & Khalatbari (2016)	Lack of detail in study to complete bias scoring. No response from author.
Mevissen et al. (2017)	Study design; not RCT

Appendix F. TSCC symptom areas and items taken and adapted from Briere (1996) (Purple items denote "Critical Items").

Levels of endorsement include; "Never", "Sometimes", "Lots of times", and "Almost all the time"

	Symptom Area	Items
1	Post-Traumatic Stress	Bad dreams or nightmares
2	Anxiety	Feeling afraid something bad might happen
3	Post-Traumatic Stress	Scary ideas or pictures just pop into my
4	Sexual Concerns – Preoccupation	Wanting to say dirty words
5	Dissociation – Fantasy	Pretending I am someone else
6	Anger	Arguing too much
7	Depression	Feeling lonely
8	Sexual Concerns – Preoccupation	Touching my private parts too much
9	Depression	Feeling sad or unhappy
10	Post-Traumatic Stress	Remembering things that happened that I
11	Post-Traumatic Stress	Going away in my mind, trying not to think
12	Post-Traumatic Stress	Remembering scary things
13	Anger	Wanting to yell and break things
14	Depression	Crying
15	Anxiety	Getting scared all of a sudden and don't
16	Anger	Getting mad and can't calm down
17	Sexual Concerns – Preoccupation	Thinking about having sex
18	Dissociation – Overt	Feeling dizzy
19	Anger	Wanting to yell at people
20	Depression	Wanting to hurt myself
21	Anger	Wanting to hurt other people

22	Sexual Concerns – Preoccupation	Thinking about touching other people's
23	Sexual Concerns – Preoccupation	Thinking about sex when I don't want to
24	Anxiety	Feeling scared of men
25	Anxiety	Feeling scared of women
26	Depression	Washing myself because I feel dirty on the
27	Depression	Feeling stupid or bad
28	Depression	Feeling like I did something wrong
29	Dissociation – Overt	Feeling like things aren't real
30	Dissociation – Overt	Forgetting things, can't remember things
31	Dissociation – Overt	Feeling like I am not inside my own body
32	Anxiety	Feeling nervous or jumpy inside
33	Anxiety	Feeling afraid
34	Sexual Concerns – Distress	Not trusting people because they might
35	Post-Traumatic Stress	Can't stop thinking about something bad
36	Anger	Getting into fights
37	Anger	Feeling mean
38	Dissociation – Fantasy	Pretending I'm somewhere else
39	Anxiety	Being afraid of the dark
40	Sexual Concerns – Distress	Getting scared or upset when I think about
41	Anxiety	Worrying about things
42	Depression	Feeling like nobody likes me
43	Post-Traumatic Stress	Remembering things I don't want to
44	Sexual Concerns – Preoccupation	Having sex feelings in my body
45	Dissociation – Overt	My mind going empty or blank
46	Anger	Feeling like I hate people
47	Sexual Concerns – Preoccupation	Can't stop thinking about sex
48	Dissociation – Overt	Trying not to have any feelings
49	Anger	Feeling mad
50	Anxiety	Feeling afraid somebody will kill me
51	Post-Traumatic Stress	Wishing bad things had never happened

52	Depression	Wanting to kill myself
53	Dissociation – Fantasy	Daydreaming
54	Sexual Concerns – Distress	Getting upset when people talk about sex

Appendix G. Description and interpretation of TSCC items.

Information taken and adapted from Briere (1996).

Description of TSCC Clinical Scales & Interpretation	
Scale	**Item Content**
Clinical Scales	
Anxiety (ANX)	**Description** Generalised anxiety, hyper-arousal, and worry; specific fears (e.g. of men, women, or both; of the dark; of being killed); episodes of free-floating anxiety; and a sense of impending danger.
	Interpretation Clinically elevated scores may reflect the presence of an anxiety disorder or the anxious hyper-arousal associated with posttraumatic stress disorder or both. Because the content of the ANX involves multiple references to danger, high scores on this scale may reflect posttraumatic fears associated with previous victimisation or with having witnessed violence against others. Other children with elevated ANX scores, however, may project their anxiety into unrealistic fears of events that have not occurred.
Depression (DEP)	**Description** Feelings of sadness, unhappiness, and loneliness; episodes of tearfulness; depressive conditions such as guilt and self-denigration;

	and self injuriousness and suicidal ideation.
	Interpretation High scores on the DEP scale may signal a depressive episode, a grief or depressive reaction, or a more long-term dysthymic process. Individuals with clinically elevated DEP scores may avoid social interactions with other children and seclude themselves physically. They are likely to see themselves as bad and unworthy and may describe a feeling of self-hatred. Elevations on DEP may be associated with suicidal ideation or self-injurious behaviour, especially when either critical item involving self-harm (20 & 52) is endorsed above 0. Non-suicidal self-mutilatory behaviours may be present for some children (especially adolescents), involving cutting, piercing, or burning of the arms, legs or other body parts. *An evaluation for suicidal ideation or self-injury is indicated whenever DEP is clinically elevated or either critical item is endorsed above 0.*
Anger (ANG)	**Description** Angry thoughts, feelings, and behaviours, including feeling mad, feeling mean, and hating others; having difficulty de-escalating anger; wanting to yell at or hurt people; arguing and fighting.
	Interpretation Children scoring high on the ANG scale are often seen by others as irritable, hostile, or aggressive. They may get into trouble at school or at home for fighting, having temper tantrums, or “talking back”, and they may have trouble in social contexts arising from their angry outbursts or aggression towards peers. Other children with elevated ANG scores may not draw attention to themselves through their

	angry behaviour but, nevertheless, may feel angry or resentful about previous maltreatment, abandonment, or perceived unfair treatment. *One ANG item (Wanting to hurt other people) is a critical item and should be followed-up if endorsed above 0.*
Posttraumatic Stress (PTS)	**Description** Posttraumatic symptoms, including intrusive thoughts, sensations, and memories of painful past events; nightmares; fears; and cognitive avoidance of painful feelings.
	Interpretation Children with elevated PTS scores are often preoccupied with one or more traumatic events in the past; they frequently describe intrusive and persistent recollections and sensory re-experiencing of these events. These symptoms can be disruptive of normal daily functioning, resulting in anxious distractibility or irritability. Posttraumatic rumination is also common, wherein the child repetitively thinks about these upsetting events, blames him-or-herself, or imagines how the event could have been avoided or changed. Also present may be fear, tension and jumpiness (as tapped by the ANX scale) and the numbing, emotional avoidance, and derealisation measured by the Dissociation scale. For some children, the ego-dystonic quality of PTS symptoms can be quite frightening, leading to fears of being out of control or "going crazy".
Dissociation (DIS)	**Description** Dissociative symptomatology, including derealisation; one's mind

	going blank; emotional numbing; pretending to be someone else or somewhere else; day-dreaming; memory problems; and dissociative avoidance. Has two subscales: DIS-O (Overt Dissociation) and DIS-F (Fantasy)
	Interpretation Children with clinically significant elevations on the DIS scale (especially DIS-O) often present with reduced responsivity to the external environment, emotional detachment, and a tendency to cognitively avoid negative effect. Those scoring high on the DIS-F may be seen by others as over-involved in fantasy to the exclusion of the "real" world and its demands. DIS responses may not be seen by the child as problematic or unwanted, as dissociative symptoms often serve to reduce painful internal experience (Briere, 1992; Putnam, 1985). When dissociative symptoms are perceived as negative, they frequently involve feelings of derealisation or depersonalisation.
Sexual Concerns (SC)	**Description** Sexual thoughts or feelings that are atypical when they occur earlier than expected or with greater than normal frequency; sexual conflicts; negative responses to sexual stimuli; and fear of being sexually exploited. Has two subscales: SC-P (Sexual Preoccupation) and SC-D (Sexual Distress).
	Interpretation Children with especially elevated scores on the SC scale may have been prematurely sexualised or sexually traumatised. This can occur as a result of childhood sexual abuse, exposure to

	pornography, witnessing sexual acts, or, in the case of adolescents, sexual assault by a peer. Elevations in SC-P reflect sexual preoccupation or behaviour that is unusual for children of a given age group. For example, an SC-P raw score of 8 is atypical for an 8 year old boy, yet within normal limits for a 16 year old adolescent male. Children with elevated SC-P scores may exhibit precocious or compulsive sexual behaviour, sometimes in socially inappropriate contexts. Friedrich (1994) and others have shown that such increased sexual preoccupation is sometimes (although not always) associated with childhood sexual abuse experiences. Elevations in SC-D reflect distress or conflict associated with sexual matters or experiences. High scores on this subscale generally involve sexual fears and unwanted or ego-dystonic sexual feelings and behaviours. For this reason, the SC-D subscale correlates more highly with the ANX scale than does the SC-P subscale. The SC-D subscale appears to especially increase in the presence of sexual abuse, although not inevitably so.
Under-response (UND)	**Description** Consists of the number of 0s endorsed for those items least likely to receive a 0 in the normative sample. Reflects a tendency toward denial, a general under-endorsement response set, or a need to appear unusually symptom-free.

	Interpretation Children with very high scores on this scale (i.e. children who marked an inordinate number of 0s) are likely to be especially defensive or avoidant, oppositional regarding test-taking, or for some other reason, unwilling to endorse commonly endorsed items.
Hyper-response (HYP)	**Description** Consists of the number of 3s marked on given items that rarely receive a 3 in the normative sample. Indicates a general over-response to TSCC items, a specific need to appear especially symptomatic, or a state of being overwhelmed by traumatic stress.
	Interpretation Children with elevated HYP scores are those who relatively indiscriminately over-endorse uncommon TSCC items, typically reflecting a generalized over-response style, a desire to appear especially distressed or dysfunctional, or a “cry for help”.

Appendix H. Consultee Participant Information Sheet.

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Participant Information Sheet - CONSULTEE

(Version 1.0: 14/01/2014)

Title of Study: **Assessment, intervention and outcomes for a young person with social, emotional and behavioural difficulties placed in residential care.**

Name of Researcher: **Stephen Drysdale**

Invitation
Child X is being invited to take part in a research study. Before you decide whether you agree to his participation it is important for you to understand why the research is being done and what it will involve. The researcher will go through the information sheet with you and answer any questions you have. Talk to others about the study if you wish. Ask the researcher if there is anything that is not clear or if you would like more information.

Who can act as a consultee?
Where people cannot take the decision to consent to be involved in a research project then a consultee must be appointed. A consultee can either be 'personal' or 'nominated'. A personal consultee is someone unconnected with the research who knows the potential research participant in a personal capacity and is able to advise on the person's wishes or feelings. This can be a friend, family member or court appointee. A nominated consultee is someone unconnected with the research, appointed by the researcher, to advise the researcher about the person's wishes and feelings in relation to the project. This can be another health-care worker but they must not have any connection with the study. Before a nominated consultee is appointed, the researcher will take all reasonable steps to identify a personal consultee.

What is the role of the consultee?
The consultee advises the researcher on what the participant's wishes and feelings would be if they were able to consent for themselves, and on whether they should take part. The consultee does not give consent, only advice. The responsibility to decide whether the participant should be entered into the research lies ultimately with the researcher. Consultees will be provided with information about the research project and will be given the opportunity to discuss it and their role as consultee. All consultees must be able to understand their role and be willing to undertake it.

What is the purpose of the study?
The case study will form part of the researcher's course requirements for the Doctorate in Forensic Psychology. The researcher will aim to demonstrate skills in assessment, formulation and intervention with a young person experiencing social, emotional and behavioural difficulties.

Why has Child X been chosen?
Child X is being invited to take part because he is due to undertake assessment, formulation and intervention with [redacted] as part of his care plan. The assessment tools being used with Child X are relevant to the researcher's project looking at the relationship between trauma and aggression, and the role of protective factors in moderating this relationship.

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Does Child X have to take part?
We would like you to think very carefully about whether or not this person would have wanted to join the study. If your opinion is that he would have decided to take part, you would be given this information sheet to keep and be asked to sign a declaration form indicating your view allowing Child X to participate in the study. If you later decide that he no longer wishes to take part, please inform the researcher and he will be withdrawn from the study. You do not need to give a reason and it will not affect the standard of care Child X receives.

What will happen to Child X if he takes part?
The researcher will meet with Child X fortnightly for assessment and intervention as appropriate and in line with his current care plan at [redacted] for a period of one year. Assessment will take place directly with Child X through completion of self-report questionnaires. Direct observations of actual functioning will also take place by the researcher. An appropriately identified programme to address social, emotional and/or behavioural problems will take place, requiring fortnightly contact between Child X and the researcher. There will be a requirement for Child X to keep a diary during this programme of intervention. The researcher will require access to the current care plan, education plan and case notes kept on file within [redacted].

What are the possible disadvantages or risks of taking part?
There are no possible disadvantages or risks of taking part.

What are the advantages of taking part?
We cannot promise the study will help Child X, but the information we get from this study may help inform future psychological practice when working to help young people in residential care who experience social, emotional and behavioural difficulties.

What happens when the research study stops?
Child X will continue to receive psychological assessment and intervention from [redacted] as outlined within his care plan at that time.

What if there is a problem?
If you have a concern about any aspect of this study, you should ask to speak to the researcher who will do his best to answer your questions. The researcher's contact details are given at the end of this information sheet.

Will his taking part in this study be kept confidential?
The researcher will follow ethical and legal practice and all information about Child X will be handled in confidence.

If Child X joins the study, some parts of his care records and the data collected for the study will be looked at by authorised persons from the University of Nottingham who are organising the research. They may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to Child X as a research participant and will do their best to meet this duty.

All information which is collected about Child X during the course of the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password protected database. Any information about Child X which leaves [redacted] will have his name and address removed (anonymised) and a unique code will be used so that he cannot be recognised from it.

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Child X's personal data (address, telephone number) will be kept for 3 months after the end of the study. All other data (research data) will be kept securely for 7 years. After this time Child X's data will be disposed of securely. During this time all precautions will be taken by all those involved to maintain confidentiality, only members of the research team will have access to his personal data.

What will happen if I do not want Child X to carry on with the study?
Child X's participation is voluntary and you are free to withdraw him at any time, without giving any reason, and without his legal rights being affected. If you withdraw him, then the information collected so far cannot be erased and this information may still be used in the project analysis.

Involvement of the General Practitioner (GP)/Clinician?
There is no need to notify or involve Child X's GP or other clinician with the current research.

What will happen to the results of the study?
The results of the research will be written up as part of the researcher's course requirements for the Doctorate in Forensic Psychology. Child X will not be identified in any report or publication.

Further information and contact details

Researcher: Stephen Drysdale
[redacted]

Coordinating Supervisor: Bob Donnelly
Psychological Consultancy Services
[redacted]

Appendix I. Signed Letter of Consent for Case Study.

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[redacted]

ADVICE FORM CONSULTEE

Title of Case Study:
Assessment, intervention and outcomes for a young person with social, emotional and behavioural difficulties placed in residential care.

Name of Researcher: Stephen Drysdale

Name of Consultee [redacted], Service Manager [redacted]) and Case Manager for [redacted]

Name of Participant: [redacted] **Please initial box**

1. I, the above named consultee, have been consulted about the above named individual's participation in this case study. I have read and understand the Consultee Information Sheet version number 1 dated 14/01/14 for the above study and have had the opportunity to ask questions. [redacted]

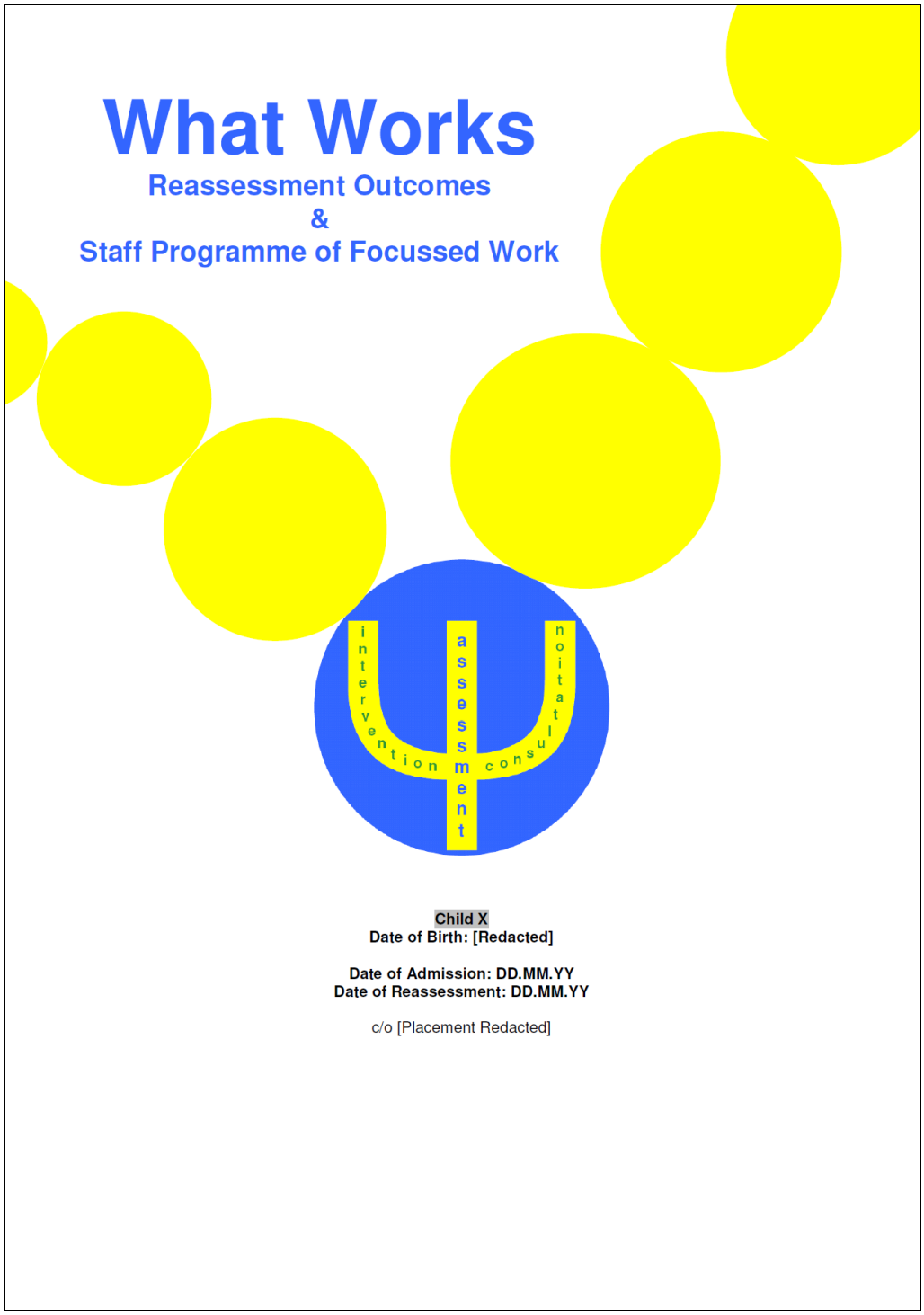
2. I understand that I can request he is withdrawn from the study at any time, without giving any reason, and without his care, medical care, treatment, psychological care or legal rights being affected. I understand that should I withdraw him from the study, then the unidentifiable information collected so far cannot be erased and that this information may still be used in the case study analysis. [redacted]

3. I understand that relevant sections of the participant's care, treatment, psychiatric notes and the data collected in the study may be looked at by authorised individuals from the University of Nottingham, the researcher's supervisors and regulatory authorities where it is relevant to their taking part in the study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish anonymous information obtained from the participant's participation in the study. I understand that his personal details will be kept confidential. [redacted]

[redacted]
Name of Consultee Date Signature

Stephen Drysdale 31/01/14
Name of Researcher Date Signature

Appendix J. What Works Programme of Assessments



Contents

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Staff Follow-up of Assessment Information

Further inquiry is based upon the What Works Principle that the highest degree of attention should be paid to those Symptom which are most **Highly** rated in terms of assessed Risk.

Basic Procedures

1. Take note of **High** and **Medium** Risk Areas in terms of the General Risks of Trauma and Aggression. Consult with Trauma Counsellor regarding assessment information.
2. Take note of the General Protective Factors of Family, Education and Activities as assessed through the Initial Joint Professional/[Placement Redacted]Assessment.
3. Take note of the basic questions of "How I am" and "How I would like to be" as defined through the Self-Image Profile.
4. Take note of **High** and **Medium** Risk Areas in terms of the Individual Protective Factors of Social-Emotional and Resilience Skills.
5. Develop the overall Child's Plan to take note of the assessment information.

Further Inquiry into High Risk Areas

1. Carry out "further inquiry into the level and meaning of **Highly** rated responses".
2. Develop a plan *with the young person* in collaboration with PSI to take note of the **High** and **Medium** Risk areas and defined **Wish to Change**.

Summary of Assessment Information and Programme of Focussed Intervention

1. General Risk Factors		
Trauma	Take note of Critical Items Take note of High and Medium Risk areas Develop the overall Child's Plan to take note of the assessment information.	Page 4 Page 5
Aggression	Take note of High and Medium Risk areas Develop the overall Child's Plan to take note of the assessment information.	Page 6
2. General Protective Factors		
Family	Take note of the Objectives from joint Professional/[Placement Redacted]assessment of initial Risk factors. Develop the overall Child's Plan to take note of the assessment information.	Page 12
Education	Take note of the Objectives from joint Professional/[Placement Redacted]assessment of initial Risk Factors. Develop the overall Child's Plan to take note of the assessment information.	Page 12
Activities	Take note of the Objectives from joint Professional/[Placement Redacted]assessment of initial Risk Factors. Develop the overall Child's Plan to take note of the assessment information.	Page 12
3. Individual Protective Factors		
Self-Image/ Wish to Change	Take note of High and Medium Risk areas Take note of stated Wish to Change. Develop the overall Child's Plan to take note of the assessment information.	Page 14 Page 14
Social/ Emotional Skills	Take note of High and Medium Risk areas Take note of High and Medium Risk for General Mood Develop the overall Child's Plan to take note of the assessment information.	Page 15 Page 15
Resilience Skills	Take note of High and Medium Risk areas Develop the overall Child's Plan to take note of the assessment information.	Page 16

Assessment Information

General Risk Factors

1. **Trauma** **Page 5 – 6**
2. **Aggression** **Page 7**

General Risk Factors: Trauma

1. Take Note of Critical Items

Critical Items	Symptom Area	Level of Endorsement
Feeling scared of men	Anxiety and PTS	Sometimes
Afraid someone will kill me	Anxiety	Sometimes
Wanting to hurt myself	Depression	Lots of times
Wanting to kill myself	Depression	Sometimes
Getting into fights	Anger	Sometimes
Not trusting people because they might want sex	Sexual Distress	Sometimes

General Risk Factors: Trauma

2. Take Note of **High** Risk Symptom Areas and Consult with Trauma Counsellor

Depression	Feeling lonely	**Sometimes**
Depression	Feeling sad or unhappy	**Sometimes**
Depression	Crying	**Sometimes**
Depression	Feeling stupid or bad	**Sometimes**
Depression	Feeling like I did something wrong	**Sometimes**
Depression	Feeling like nobody likes me	**Lots of times**

Sexual Concerns – Distress	Getting scared or upset when I think about sex	**Sometimes**
Sexual Concerns – Distress	Getting upset when people talk about sex	**Sometimes**
Sexual Concerns – Preoccupation	Wanting to say dirty words	**Lots of times**
Sexual Concerns – Preoccupation	Touching my private parts too much	**Sometimes**
Sexual Concerns – Preoccupation	Thinking about having sex	**Lots of times**

3. Take Note of **Medium** Risk Symptom Areas

Anxiety	Feeling afraid something bad might happen	**Lots of times**
Anxiety	Getting scared all of a sudden and don't know why	**Sometimes**
Anxiety	Feeling nervous or jumpy inside	**Sometimes**
Anxiety	Feeling afraid	**Sometimes**
Anxiety	Being afraid of the dark	**Sometimes**
Anxiety	Worrying about things	**Sometimes**

Post-Traumatic Stress	Bad dreams or nightmares	**Sometimes**
Post-Traumatic Stress	Scary ideas or pictures just pop into my head	**Lots of times**
Post-Traumatic Stress	Remembering things that happened that I didn't like	**Lots of times**
Post-Traumatic Stress Dissociation – Overt	Going away in my mind, trying not to think	**Sometimes**
Post-Traumatic Stress	Remembering scary things	**Lots of times**
Post-Traumatic Stress	Can't stop thinking about something bad that happened to me	**Sometimes**
Post-Traumatic Stress	Remembering things I don't want to remember	**Lots of times**
Post-Traumatic Stress	Wishing bad things had never happened	**Sometimes**

General Risk Factors: Aggression

1. Take Note of **High** Risk Symptom Areas and Consult with Trauma Counsellor

Anger	I flare up quickly, but get over it quickly.	**Very much like me**
Anger	At times I get angry for no good reason.	**Completely like me**
Anger	I have trouble controlling my temper.	**Very much like me**
Anger	I am a calm person	**A little like me**
Anger	I let my anger show when I do not get what I want.	**Somewhat like me**
Anger	At times I feel like a bomb ready to explode.	**Completely like me**
Anger	Some of my friends think I am a hothead.	**Completely like me**

2. Take Note of **Medium** Risk Symptom Areas

Child X recorded no **Medium** Risk Symptom Areas. No action required.

Assessment Information

Education Assessment

1. **Wechsler Individual Achievement Test (WIAT-II) Page 9**

Education Reassessment

Child X

Date of initial assessment: DD.MM.YY
Date of reassessment: DD.MM.YY
Age at reassessment: DD.MM.YY

WIAT-II Literacy Skills	Reassessment Standard Score (Initial Score)	Initial Age Equivalent (13.04)	Projected Reassessment Age Equivalent (14.04)	Actual Reassessment Age Equivalent (14.4)	Projected Reassessment Age Equivalent (15.00-16.00)
Basic Reading	75 (75)	8.04	10.04	10.04	10.08
Reading Comprehension	91 (90)	11.00	11.04	11.08	12.04
Pseudoword Decoding	84 (83)	8.04	9.00	9.04	9.04
Composite Score	82 (81)				
WIAT-II Numeracy Skills	**Reassessment Standard Score (Initial Score)**	**Initial Age Equivalent (13.04)**	**Projected Reassessment Age Equivalent (14.04)**	**Actual Reassessment Age Equivalent (14.4)**	**Projected Reassessment Age Equivalent (15.00-16.00)**
Numerical Operations	61 (59)	7.08	7.08-8.00	8.00	8.04
Mathematical Reasoning	85 (86)	9.08	10.04-10.08	10.04	11.08
Composite Score	71 (70)				

Overall Level of Risk			
Level of Risk	**Low**	**Medium**	**High**
Literacy Skills			✓
Numeracy Skills			✓

General Comments	Child X initially recorded a **High** level of Risk in terms of overall Literacy skills. On reassessment Child X recorded a **High** level of Risk in terms of overall Literacy skills. Child X shows weakness in terms of basic Reading that will have an impact on his Comprehension skills which tend to be resistant to further progress. Child X initially recorded a **High** level of Risk in terms of overall Numeracy skills. On reassessment Child X recorded a **High** level of Risk in terms of overall Numeracy skills. Child X shows weakness in terms of Numerical Operations skills which tend to be resistant to further progress. Overall however Child X should continue to make progress. Due to WIAT-II Initial Educational assessment outcomes, additional SNAP-SpLD was required. Within [Placement Redacted] Child X thought that he was managing in the classroom setting and in principle, based upon the results of previous young people within [redacted], he is capable of achieving certificate success in all of those subjects available within the Learning Zone.

Assessment Information

Individual Protective Factors

1. **Self-Image/Wish to Change** **Page 19 – 20**
2. **Social-Emotional Skills** **Page 21**
3. **Resilience Skills** **Page 22**

Individual Protective Factors: Self-Image/Self-Esteem

1. Take Note of **High** and **Medium** Risk Ratings of Self-Image
2. Take Note of **Highly** Expressed **Wish to Change**

	Self Image	Aspects of Self	Rated Items	Level of Endorsement 0 Not At All – 6 Very Much	Expressed Wish to Change
1	Positive Self Image	Caring	Kind	3	+2
2	Positive Self Image	Caring	Happy	4	0
3	Positive Self Image	Caring	Friendly	4	0
4	Positive Self Image	Outgoing	Funny	3	+1
5	Positive Self Image	Caring	Helpful	4	0
6	Positive Self Image	Academic	Hard Working	3	+2
7	Positive Self Image	Expressive	Talkative	3	+1
8	Positive Self Image	Outgoing/Hesitant	Confident	2	+3
9	Positive Self Image	Outgoing	Sporty	5	0
10	Positive Self Image	Academic	Intelligent	3	+2
11	Positive Self Image	Outgoing	Fun to be With	3	+1
12	Positive Self Image	Outgoing	Good Looking	2	+3
13	A Sense of Difference	Feel Different	Feel Different from Others	5	-2
14	Negative Self Image	Inactive	Lazy	5	-2
15	Negative Self Image	Expressive	Annoying	5	-1
16	Negative Self Image	Emotional	Moody	4	-1
17	Negative Self Image	Expressive	Mess About	4	0
18	Negative Self Image	Hesitant	Shy	3	-1
19	Negative Self Image	Expressive	Cheeky	4	0
20	Negative Self Image	Expressive	Loud	4	-2
21	Negative Self Image	Expressive	Sarcastic/Bitchy	1	0
22	Negative Self Image	Unease	Worry a Lot	4	-2
23	Negative Self Image	Expressive	Bossy	3	-1
24	Negative Self Image	Emotional	Short Tempered	4	-2
25	Negative Self Image	Resourceful	Get Bored	3	-2

1. Overall Positive and Negative Self Image is coded **High** or **Medium** or **Low** Risk
2. **High** Risk Individual Ratings are coded **Red**
3. **High** Risk **Wish to Change** Ratings are coded **Red**

Initial Self-Image Assessment

How Does Child X See Himself?

Child X's Positive Self-Image
Child X shows an overall **Low** level of Risk in terms of his Positive Self-Image. Child X noted no **High** Risk ratings for Positive Self-Image and 1 **Medium** Risk rating for confidence. Child X saw himself as being happy, friendly, helpful and sporty. .
Child X's Negative Self-Image
Child X shows an overall **High** level of Risk in terms of his Negative Self-Image. Child X noted 1 **High** Risk rating for being lazy and 4 **Medium** Risk ratings for being moody, shy, short-tempered and worrying a lot. Child X saw himself as not being sarcastic.
Child X's Sense of Difference
Child X noted a rating of 5 for Sense of Difference from others. Child X noted a rating of -2 for his desired Sense of Difference from others. Further exploration with Child X required to discuss what is meant by his sense of difference from others and how he would like to reduce this.
How Does Child X Wish to Change?
Child X shows a low degree of **Wish to Change**. Child X noted 2 **High** ratings for **Wish to Change**, wanting to become more confident and good looking.
Action
1. Take note of Child X's stated **Wish to Change**. 2. Take note of Child X's **High** Risk Positive Ratings and encourage and reinforce instances of positive behaviour. 3. Take note of Child X's **High** Risk Negative Ratings and encourage and reinforce instances of positive behaviour. 4. Integrate the Self-Image and **Wish to Change** information within the overall [Placement Redacted] Plan.

Individual Protective Factors: Social-Emotional Skills

1. Take Note of **High** Risk Symptom Areas

	Symptom Area	Ratings of Self	Level of Endorsement
12	Adaptability Scale	I try to use different ways of answering hard questions	Seldom True of Me
22	Adaptability Scale	I can understand hard questions	Seldom True of Me
25	Adaptability Scale	I try to stick with a problem until I solve it	Seldom True of Me
30	Adaptability Scale	I can come up with good answers to hard questions	Seldom True of Me
34	Adaptability Scale	I can come up with many ways of answering a hard question when I want to	Seldom True of Me
38	Adaptability Scale	I can easily use different ways of solving problems	Seldom True of Me
44	Adaptability Scale	When answering hard questions I try to think of many solutions	Seldom True of Me
48	Adaptability Scale	I am good at solving problems	Seldom True of Me
57	Adaptability Scale	Even if things get hard, I do not give up	Very Seldom True of Me
2	Inter-Personal Scale	I am good at understanding the way other people feel	Seldom True of Me
10	Inter-Personal Scale	I usually know how other people are feeling	Seldom True of Me
20	Inter-Personal Scale	Having friends is important	Seldom True of Me
36	Inter-Personal Scale	I like doing things for others	Seldom True of Me
41	Inter-Personal Scale	I make friends easily	Seldom True of Me
45	Inter-Personal Scale	I feel bad when other people have their feelings hurt	Seldom True of Me
59	Inter-Personal Scale	I know when people are upset, even when they say nothing	Seldom True of Me
3	Stress Management Scale	I can stay calm when I am upset	Very Seldom True of Me
6	Stress Management Scale	It is hard for me to control my anger	Often True of Me
11	Stress Management Scale	I know how to keep calm	Seldom True of Me
21	Stress Management Scale	I fight with people	Seldom True of Me
26	Stress Management Scale	I have a temper	Very Often True of Me
35	Stress Management Scale	I get angry easily	Very Often True of Me
39	Stress Management Scale	It takes a lot for me to get upset	Seldom True of Me
49	Stress Management Scale	It is hard for me to wait my turn	Often True of Me
58	Stress Management Scale	When I get angry, I act without thinking	Often True of Me

2. Take Note of **Medium** Risk Symptom Areas

Child X recorded no **Medium** Risk Areas. No action required.

3. Take Note of **High** Risk for General Mood

9	General Mood Scale	I feel sure of myself	**Very Seldom True of Me**
13	General Mood Scale	I think that most things I do will turn out okay	**Seldom True of Me**
19	General Mood Scale	I hope for the best	**Seldom True of Me**
23	General Mood Scale	I like to smile	**Very Seldom True of Me**
29	General Mood Scale	I know things will be okay	**Seldom True of Me**
32	General Mood Scale	I know how to have a good time	**Seldom True of Me**
40	General Mood Scale	I feel good about myself	**Very Seldom True of Me**
47	General Mood Scale	I am happy with the kind of person I am	**Very Seldom True of Me**
60	General Mood Scale	I like the way I look	**Seldom True of Me**

Individual Protective Factors: Resilience Skills

1. Take Note of **High** Risk Symptom Areas

Mastery	Optimism	I can make good things happen	Rarely
Mastery	Self-Efficacy	I do things well	Rarely
Mastery	Self-Efficacy	I am good at fixing things	Rarely
Mastery	Self-Efficacy	I make good decisions	Rarely
Mastery	Self-Efficacy	I can adjust when plans change	Rarely
Mastery	Self-Efficacy	I can get past problems in my own way	Rarely
Mastery	Adaptability1	I can ask for help when I need to	Rarely
Mastery	Adaptability1	I can let others help me when I need to	Rarely
Mastery	Optimism	Good things will happen to me	Rarely
Mastery	Optimism	My life will be happy	Rarely
Mastery	Optimism	No matter what happens, things will be alright	Rarely

Relatedness	Comfort	I can meet new people easily	**Rarely**
Relatedness	Comfort	I can make friends easily	**Rarely**
Relatedness	Comfort	People like me	**Rarely**
Relatedness	Support	I have a good friend	**Rarely**
Relatedness	Support	I spend time with my friends	**Rarely**
Relatedness	Support	If something bad happens I can ask my friends for help	**Rarely**
Relatedness	Support	If something bad happens I can ask my parent(s) for help	**Never**

2. Take Note of **Medium** Risk Symptom Areas

Reactivity	Sensitivity	It is easy for me to get upset	**Often**
Reactivity	Sensitivity	People say that I am easy to upset	**Often**
Reactivity	Sensitivity	I strike back when someone upsets me	**Often**
Reactivity	Sensitivity	I get very upset when things don't go my way	**Often**
Reactivity	Sensitivity	I get very upset when people don't like me	**Often**
Reactivity	Impairment	I get so upset that I lose control	**Often**
Reactivity	Impairment	When I get upset I don't think clearly	**Often**
Reactivity	Impairment	When I get upset, I react without thinking	**Often**
Reactivity	Impairment	When I am upset, I get into trouble	**Often**

Assessment Information

Profiles

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2. **Aggression Profile** **Page 25**
3. **Self-Image Profile** **Page 26**
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Summary of Assessment Information/Focussed Intervention **Page 29**

Trauma Symptom Checklist Profile

Date of Reassessment: DD.MM.YY
Age: DD.MM.YY
TSCC Test Profile: Valid

	Possible Tasks	Critical Items	Risk Area	Level of Endorsement	
				DD.MM.YY	DD.MM.YY
1	Take note of Critical Items Endorsed	Feeling scared of men	Anxiety and PTS	Never	Sometime
		Feeling scared of women	Anxiety and PTS	Never	Never
		Afraid someone will kill me	Anxiety	Never	Sometime
		Wanting to hurt myself	Depression	Never	Lots of tir
		Wanting to kill myself	Depression	Never	Sometime
		Wanting to hurt other people	Anger	Sometime	Never
		Getting into fights	Anger	Lots of tir	Sometime
		Not trusting people because they might want sex	Sexual Distress	Never	Sometime

		Risk Area	Self-Report Level of Risk		Observation Level of Risk	
			DD.MM.YY	DD.MM.YY	DD.MM.YY	DD.MM.YY
2	Take Note of High and Medium Risk Areas	Anxiety	Low	Medium	High	High
		Depression	Low	High	High	Medium
		Anger	Low	Low	High	High
		Post-Traumatic Stress	Low	Medium	High	Medium
		Dissociation	Low	Low	High	Medium
		Sexual Concerns	Low	High	High	High
3	Consultation with Psychological Services and Intervention (PSI)					
4	Focus on General and Individual Protective Factors					

General Comments	Child X's present Trauma assessment is considered valid as there was no level of under or over recording. The initial assessment noted 2 Critical Items endorsed with an overall Critical Item score of 3. The present assessment noted 6 Critical Items endorsed with an overall Critical Item score of 7 (max 24). Child X initially self-reported no High and no Medium Risk Areas. On reassessment Child X self-reported 1 High and 2 Medium Risk Areas. Child X's present self-report of Trauma conflicts with professional opinion of his actual functioning. The evidence for this is outlined in the Observations of Actual Functioning assessment on page 26.

Professional Assessment of Overall Risk	High

Action	1	Take Note of Critical Items	✓
	2	Take Note of High Risk Areas	✓
		Take Note of Medium Risk Areas	✓
	3	Consultation with CAMHS	✓
	4	Focus on General and Individual Protective Factors	✓

This Profile is based upon the TSCC, J. Briere, Psychological Assessment Resources, 1996.
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Aggression Questionnaire – Profile

Date of Reassessment: DD.MM.YY
Age: DD.MM.YY

Possible Tasks		Risk Areas	Self-Report Level of Risk		Observation Level of Risk	
			DD.MM.YY	DD.MM.YY	DD.MM.YY	DD.MM.YY
1	Take Note of High and Medium Risk Areas	Physical Aggression	Low	Low	High	High
		Verbal Aggression	Low	Low	High	High
		Anger	High	High	High	High
		Hostility	Low	Low	High	High
		Indirect Aggression	Low	Low	Medium	Medium
2	Consultation with Psychological Services and Intervention (PSI)					
3	Focus on General and Individual Protective Factors					

General Comments	Child X initially self-reported an overall **Low** level of Risk for Aggression. On reassessment Child X self-reported an overall **Low** level of Risk for Aggression. Child X initially self-reported 1 **High** and no **Medium** Risk Areas. On reassessment Child X self-reported 1 **High** and no **Medium** Risk Areas. Child X initially self-reported an Inconsistency Score of 4 which is within the acceptable range. On reassessment Child X again self-reported an Inconsistency Score of 4. Child X's present self-report of Aggression conflicts with professional opinion of his actual functioning. The evidence for this is outlined in the Observations of Actual Functioning assessment on page 29.

Professional Assessment of Overall Risk	**High**

Action	1	Take Note of **High** Risk Areas	✓
		Take Note of **Medium** Risk Areas	
	2	Consultation with CAMHS	✓
	3	Focus on General and Individual Protective Factors	✓

This Profile is based upon the Aggression Questionnaire, Western Psychological Services 2000.
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Self Image Profile (Adolescents) – Profile

Date of Reassessment: DD.MM.YY
Age: DD.MM.YY

Possible Tasks		Risk Areas	Self-Report Level of Risk		Observation Level of Risk	
			DD.MM.YY	DD.MM.YY	DD.MM.YY	DD.MM.YY
1	Take Note of High Risk Ratings of Self-Image	Positive Self-Image	Low	Low	High	High
		Negative Self-Image	Low	High	High	High
2	Take Note of Highly Expressed Wish to Change	Child X presently shows low degree of **Wish to Change**. Child X has rated most highly on wanting to increase his confidence and to become better looking.				
3	Focus on General and Individual Protective Factors					

General Comments	Child X initially recorded an overall **Low** level of Risk for Positive Self-Image. On reassessment Child X recorded an overall **Low** level of Risk for Positive Self-Image. Child X initially recorded an overall **Low** level of Risk for Negative Self-Image. On reassessment Child X recorded an overall **High** level of Risk for Negative Self-Image. Child X initially recorded a low degree of **Wish to Change.** On reassessment Child X recorded a low degree of **Wish to Change.** Child X's present self-report of Self-Image conflicts with professional opinion of his actual functioning. The evidence for this is outlined within the Observations of Actual Functioning assessment on page 31.

Professional Assessment of Overall Risk	**High**

Action	1	Take Note of **High** Risk Ratings of Self-Image	✓
	2	Take Note of **Highly** Expressed **Wish to Change**	✓
	3	Focus on General and Individual Protective Factors	✓

This Profile is based upon the SIP-Adolescents, R. J. Butler (2001).
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Social-Emotional Skills – Profile

Date of Reassessment: DD.MM.YY
Age: DD.MM.YY

Possible Tasks		Risk Areas	Self-Report Level of Risk		Observation Level of Risk	
			DD.MM.YY	DD.MM.YY	DD.MM.YY	DD.MM.YY
1	Take Note of High and Medium Risk Areas	Intra-Personal Skills	Low	Low	High	High
		Inter-Personal Skills	High	High	High	High
		Stress Management	Low	High	High	High
		Adaptability	Low	High	High	High
2	Take Note of High and Medium Risk Areas for General Mood	General Mood	N/A	High	High	Medium
3	Focus on General and Individual Protective Factors					

General Comments	Child X initially self-reported an overall Medium level of Risk for Social-Emotional Skills. Child X self-reported 1 High and Risk Symptom Area initially with regard to Inter-Personal Skills. On reassessment Child X self-reported an overall High level of Risk for Social-Emotional Skills. Child X self-reported 3 High and no Medium Risk Symptom Areas. Child X was too young on initial assessment to determine the level of Risk for General Mood. On reassessment Child X self-reported an overall High level of Risk for General Mood. On reassessment Child X self-reported an Inconsistency Score of 7 which is within the acceptable range. Child X's present self-report of Social-Emotional skills and General Mood conflicts with professional opinion of his actual functioning. The evidence for this is outlined within the Observations of Actual Functioning assessment on page 34.

Professional Assessment of Overall Risk	High

Action	1	Take Note of High Risk Areas	✓
		Take Note of Medium Risk Areas	
	2	Take Note of High Risk for General Mood	✓
		Take Note of Medium Risk for General Mood	
	3	Focus on General and Individual Protective Factors	✓

This Profile is based upon the BarOn EQ-i (YV), Multi-Health Systems, 2000.
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Resiliency Skills – Profile

Date of Reassessment: DD.MM.YY
Age: DD.MM.YY

Possible Tasks		Risk Area	Self-Report Level of Risk		Observation Level of Risk	
			DD.MM.YY	DD.MM.YY	DD.MM.YY	DD.MM.YY
1	Take Note of High and Medium Risk Areas	Mastery Skills	High	High	High	High
		Relatedness Skills	High	High	High	Medium
		Emotional Reactivity Skills	High	Medium	High	High
2	Focus on General and Individual Protective Factors					

General Comments	Child X initially self-reported an overall **High** level of Risk in terms of Resource. On reassessment Child X self-reported an overall **High** level of Risk in terms of Resource. Child X initially self-reported an overall **High** level of Risk in terms of Vulnerability. On reassessment Child X self-reported an overall **High** level of Risk in terms of Vulnerability. Child X initially was considered to show a **High** level of Risk in terms of overall Resilience Skills. On reassessment Child X is considered to show a **High** level of Risk in terms of overall Resilience Skills. Child X's present self-report of Resilience skills conflicts with professional opinion of their actual functioning. The evidence for this is outlined within the Observations of Actual Functioning assessment on page 37.

Professional Assessment of Overall Risk	**High**

Action	1	Take Note of **High** Risk Symptom Areas	✓
		Take Note of **Medium** Risk Symptom Areas	✓
	2	Focus on General and Individual Protective Factors	✓

This Profile is based upon the Resiliency Scales, Harcourt Assessment, 2007.
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Summary of Assessment Information/Focussed Intervention

Areas of Focus	Professional Assessment of Overall Risk			Action	
General Risk Factors					
Trauma	DD.MM.YY	DD.MM.YY	1	Immediate focus on Critical Items	✓
	High	High	2	Take Note of **High** and **Medium** Risk Areas	✓
			3	Consultation with CAMHS	✓
Aggression	DD.MM.YY	DD.MM.YY	1	Take Note of **High** and **Medium** Risk Areas	✓
	High	High	2	Consultation with CAMHS	✓
Education Assessment					
Education Core Skills					
Literacy		**Numeracy**			
DD.MM.YY	DD.MM.YY	DD.MM.YY	DD.MM.YY	1	Establish appropriate Learning Zone attendance and engagement	✓
High	High	High	High	2	Improve core educational skills	✓
Individual Protective Factors					
Self-Image/ Self-esteem	DD.MM.YY	DD.MM.YY	1	Take Note of **High** and **Medium** Risk Areas	✓
	High	High	2	Take Note of stated **Wish to Change**	✓
Social-Emotional Skills	DD.MM.YY	DD.MM.YY	1	Take Note of **High** and **Medium** Risk Areas	✓
	High	High	2	Take Note of **High** and **Medium** Risk for General Mood	✓
Resilience Skills	DD.MM.YY	DD.MM.YY			
	High	High	1	Take Note of **High** and **Medium** Risk Areas	✓

Assessment Information

Appendices

General Risk Factors

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   - Observations of Actual Functioning Page 33
2. Aggression
   - Self-Report Page 34
   - Observations of Actual Functioning Page 35

Individual Protective Factors

3. Self-Image Profile
   - Self-Report Page 36
   - Observations of Actual Functioning Page 37
4. Social-Emotional Skills
   - Self-Report Page 38
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5. Resilience Skills
   - Self-Report Page 41
   - Observations of Actual Functioning Page 43

Appendix 1.1

Trauma Symptom Checklist: Self-Report Responding

	Symptom Area	Extreme Ratings	Level of Endorsement
6	Anger	Arguing too much	Lots of times
13	Anger	Wanting to yell and break things	Lots of times
16	Anger	Getting mad and can't calm down	Sometimes
19	Anger	Wanting to yell at people	Never
21	Anger	Wanting to hurt other people	Never
36	Anger	Getting into fights	Sometimes
37	Anger	Feeling mean	Sometimes
46	Anger	Feeling like I hate people	Sometimes
49	Anger	Feeling mad	Sometimes
2	Anxiety	Feeling afraid something bad might happen	Lots of times
15	Anxiety	Getting scared all of a sudden and don't know why	Sometimes
24	Anxiety Post-Traumatic Stress	Feeling scared of men	Sometimes
25	Anxiety Post-Traumatic Stress	Feeling scared of women	Never
32	Anxiety	Feeling nervous or jumpy inside	Sometimes
33	Anxiety	Feeling afraid	Sometimes
39	Anxiety	Being afraid of the dark	Sometimes
41	Anxiety	Worrying about things	Sometimes
50	Anxiety	Feeling afraid somebody will kill me	Sometimes
7	Depression	Feeling lonely	Sometimes
9	Depression	Feeling sad or unhappy	Sometimes
14	Depression	Crying	Sometimes
20	Depression	Wanting to hurt myself	Lots of times
26	Depression	Washing myself because I feel dirty on the inside	Never
27	Depression	Feeling stupid or bad	Sometimes
28	Depression	Feeling like I did something wrong	Sometimes
42	Depression	Feeling like nobody likes me	Lots of times
52	Depression	Wanting to kill myself	Sometimes
5	Dissociation – Fantasy	Pretending I am someone else	Sometimes
38	Dissociation – Fantasy	Pretending I'm somewhere else	Sometimes

53	Dissociation – Fantasy	Daydreaming	**Sometimes**
18	Dissociation – Overt	Feeling dizzy	**Never**
29	Dissociation – Overt	Feeling like things aren't real	**Sometimes**
30	Dissociation – Overt	Forgetting things, can't remember things	**Sometimes**
31	Dissociation – Overt	Feeling like I am not inside my own body	**Never**
45	Dissociation – Overt	My mind going empty or blank	**Never**
48	Dissociation – Overt	Trying not to have any feelings	**Never**
1	Post-Traumatic Stress	Bad dreams or nightmares	**Sometimes**
3	Post-Traumatic Stress	Scary ideas or pictures just pop into my head	**Lots of times**
10	Post-Traumatic Stress	Remembering things that happened that I didn't like	**Lots of times**
11	Post-Traumatic Stress Dissociation – Overt	Going away in my mind, trying not to think	**Sometimes**
12	Post-Traumatic Stress	Remembering scary things	**Lots of times**
35	Post-Traumatic Stress	Can't stop thinking about something bad that happened to me	**Sometimes**
43	Post-Traumatic Stress	Remembering things I don't want to remember	**Lots of times**
51	Post-Traumatic Stress	Wishing bad things had never happened	**Sometimes**
34	Sexual Concerns – Distress	Not trusting people because they might want sex	**Sometimes**
40	Sexual Concerns – Distress	Getting scared or upset when I think about sex	**Sometimes**
54	Sexual Concerns – Distress	Getting upset when people talk about sex	**Sometimes**
4	Sexual Concerns – Preoccupation	Wanting to say dirty words	**Lots of times**
8	Sexual Concerns – Preoccupation	Touching my private parts too much	**Sometimes**
17	Sexual Concerns – Preoccupation	Thinking about having sex	**Lots of times**
22	Sexual Concerns – Preoccupation	Thinking about touching other people's private parts	**Lots of times**
23	Sexual Concerns – Preoccupation Sexual Concerns – Distress	Thinking about sex when I don't want to	**Sometimes**
44	Sexual Concerns – Preoccupation	Having sex feelings in my body	**Lots of times**
47	Sexual Concerns – Preoccupation	Can't stop thinking about sex	**Lots of times**

This Profile is based upon the TSCC, J. Briere, Psychological Assessment Resources, 1996.
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Appendix 1.2

Trauma: Observations of Actual Functioning

Date of Assessment: DD.MM.YY

The sub-scales of the Trauma Symptom Checklist for Children (TSCC) are concerned, as defined in the manual, with the impact of generalised trauma upon young people in terms of the Following areas:	
Anxiety	*Generalised anxiety; hyper-arousal and worry; specific fears e.g. of men, women or both; of the dark; of being killed; episodes of free floating anxiety; and a sense of impending danger.*
Depression	*Feelings of sadness, unhappiness and loneliness; episodes of tearfulness; depressive cognitions such as guilt and self-denigration; self-injuriousness and suicidality.*
Anger	*Angry thoughts, feelings and behaviours including feeling mad, feeling mean and hating others; having difficulty de-escalating anger; wanting to yell at or hurt people; arguing and fighting.*
Post-Traumatic Stress (PTS)	*Post-traumatic symptoms including intrusive thoughts, sensations and memories of painful past events; nightmares; fears; cognitive avoidance of painful feelings.*
Fantasy Dissociation	*Seen by others as over-involved in fantasy to the exclusion of the "real" world and its demands.* *Dissociative symptomatology including derealisation - one's mind going blank - emotional numbing - pretending to be someone else or somewhere else - day-dreaming - memory problems - dissociative avoidance.*
Overt Dissociation	*Reduced responsivity to the external environment, emotional detachment, and a tendency to cognitively avoid negative effect.* *Dissociative symptomatology including derealisation - one's mind going blank - emotional numbing - pretending to be someone else or somewhere else - day-dreaming - memory problems - dissociative avoidance.*
Sexual Pre-occupation	*Sexual preoccupation or behaviour that is unusual for children of a given age group. Exhibits precocious or compulsive sexual behaviour, sometimes in socially inappropriate contexts.*
Sexual Distress	*Distress or conflict associated with sexual matters or experiences. Sexual fears and unwanted or ego-dystonic sexual feelings and behaviours.*

Aspect	Specific Aspect	Level of Risk	Comments
Anxiety		**High**	Child X is much more relaxed within the [redacted] setting than last year, however now that he has the opportunity for more social engagement outwith the house, Child X can present as very anxious in advance and during these events. Child X will often discuss with staff a fear of dying. There has been a reduction in generalised anxiety for Child X during the past year and he is no longer easily frightened by loud or sudden noises. Child X is no longer scared of the dark.
Depression		**Medium**	Child X continues to struggle expressing his emotions, however there has been an improvement since last year, particularly with his Key Worker. Child X presents as more upbeat generally than previously and can be observed to be looking forward to near future events e.g. certain staff coming on shift and the recent trip to London. Child X has self-harmed on two occasions during the past year. There are no ongoing concerns of suicidal ideation which were present last year.

			confrontational. Child X's default position is to assume that you do not like him and it takes continual positive reinforcement to build a relationship. Child X will shout, yell and break things at times. He has assaulted members of staff at times.
PTS		Medium	Child X has been able to start working through trauma issues from the past during focussed work with PSI. There has been a significant reduction in the frequency of nightmares and Child X's sleeping routine has markedly improved.
Dissociation	Fantasy	Medium	Child X continues to struggle in situations that he perceives as competitive, e.g. playing a board game. Child X has developed a coping strategy for this which involves taking on alternative identity when losing to protect his ego from the disappointment. Staff have observed that Child X can become very much immersed in these fantasy situations which has been a concern on occasion. There have been no incidents of this behaviour during Child X's daily routine other than during game play situations.
	Overt Dissociation	Medium	
Sexual Concerns	Sexual Pre-occupation	High	Child X does not exhibit appropriate boundaries with his stage of sexual development. Child X has presented as very sexualised towards members of staff during the past year and has been observed to have conversations with peers that made them feel uncomfortable. Child X has very negative views of women generally and will call women "sluts", "bitch" etc.
	Sexual Distress	Medium	

Appendix 2.1

Aggression Questionnaire: Self-Report Responding

Symptom Area		Extreme Ratings	Level of Endorsement
3	Anger	I flare up quickly, but get over it quickly.	Very much like me
7	Anger	At times I get angry for no good reason.	Completely like me
12	Anger	I have trouble controlling my temper.	Very much like me
19	Anger	I am a calm person	A little like me
22	Anger	I let my anger show when I do not get what I want.	Somewhat like me
29	Anger	At times I feel like a bomb ready to explode.	Completely like me
32	Anger	Some of my friends think I am a hothead.	Completely like me
2	Hostility	Other people always seem to get the breaks.	Very much like me
5	Hostility	At times I feel I have gotten a raw deal out of life.	A little like me
9	Hostility	I wonder why sometimes I feel so bitter about things.	Somewhat like me
16	Hostility	I wonder what people want when they are nice to me.	Not at all like me
21	Hostility	I sometimes feel like people are laughing at me behind my back.	Very much like me
28	Hostility	I do not trust strangers who are too friendly.	Very much like me
31	Hostility	I know that "friends" talk about me behind my back.	Somewhat like me
33	Hostility	At times I am so jealous I can't think of anything else.	Not at all like me
13	Indirect	If I'm angry enough, I may mess up someone's work.	A little like me
14	Indirect	I have been mad enough to slam a door when leaving someone behind in the room.	Somewhat like me
15	Indirect	When people are bossy, I take my time doing what they want, just to show them.	Not at all like me
18	Indirect	I sometimes spread gossip about people I don't like.	Not at all like me
30	Indirect	When someone really irritates me, I might giver him or her the silent treatment.	Not at all like me
34	Indirect	I like to play practical jokes.	Somewhat like me
8	Physical	I may hit someone if he or she provokes me.	Somewhat like me
10	Physical	I have threatened people I know.	Very much like me
11	Physical	Someone has pushed me so far that I hit him or her.	Somewhat like me
17	Physical	I have become so mad that I have broken things.	Somewhat like me
23	Physical	At times I can't control the urge to hit someone.	A little like me
24	Physical	I get into fights more than most people.	A little like me
25	Physical	If somebody hits me, I hit back.	Very much like me
27	Physical	If I have to resort to violence to protect my rights, I will.	Very much like me
1	Verbal	My friends say that I argue a lot.	Somewhat like me
4	Verbal	I often find myself disagreeing with people.	Somewhat like me
6	Verbal	I can't hep getting into arguments when people disagree with me.	Somewhat like me
20	Verbal	When people annoy me, I may tell them what I think of them.	Somewhat like me
26	Verbal	I tell my friends openly when I disagree with them.	Somewhat like me

This Profile is based upon the Aggression Questionnaire, Western Psychological Services 2000.
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Appendix 2.2

Aggression: Observations of Actual Functioning

Date of Assessment: DD.MM.YY

The sub-scales of The Aggression Questionnaire (AQ) allow a level of detail which is particularly useful in treatment planning and in the monitoring of progress both in individual and organisation terms. The sub-scales of the AQ are concerned, as defined in the Manual, with the Following aspects of aggression:	
Physical Aggression	*The use of physical force when expressing anger or aggression.*
Verbal Aggression	*The use of quarrelsome and hostile speech.*
Anger	*Angry thoughts, feelings and behaviours including feeling mad, feeling mean and hating others; having difficulty de-escalating anger; wanting to yell at or hurt people; arguing and fighting.*
Hostility	*Attitudes of alienation, bitterness and paranoia.*
Indirect Aggression	*The tendency to express Anger but avoid direct confrontation.*

Aspect	Level of Risk	Comments
Physical Aggression	**High**	Child X's levels of physical aggression have reduced during the past year however he will often threaten to assault staff. There has been one incident of Child X damaging property by breaking a window in [redacted].
Verbal Aggression	**High**	Child X continues to be very verbally aggressive generally during conversation. He can turn very quickly when he feels that he is not in control of the situation. Child X will shout loudly and presents as very hostile when being argumentative.
Anger	**High**	Child X expresses rage very quickly during times of becoming unsettled. He will physically remove himself from situations at times when he escalating. Child X is visually very angry through use of his body language and facial expressions.
Hostility	**High**	Child X presents as very paranoid about what people think about him and will verbalise that he feels nobody likes him. Child X can become relatively bitter about his perception of events and will make the assumption that people are working against him.
Indirect Aggression	**Medium**	Child X does not always appear to directly seek confrontation and will appear surprised on occasion when people become upset by his actions or expressions.

Appendix 3.1

Self Image Profile (Adolescent): Self-Report Responding

	Self Image	Aspects of Self	Rated Items	Level of Endorsement 0 Not At All – 6 Very Much	Expressed Wish to Change
1	Positive Self Image	Caring	Kind	3	+2
2	Positive Self Image	Caring	Happy	4	0
3	Positive Self Image	Caring	Friendly	4	0
4	Positive Self Image	Outgoing	Funny	3	+1
5	Positive Self Image	Caring	Helpful	4	0
6	Positive Self Image	Academic	Hard Working	3	+2
7	Positive Self Image	Expressive	Talkative	3	+1
8	Positive Self Image	Outgoing/Hesitant	Confident	2	+3
9	Positive Self Image	Outgoing	Sporty	5	0
10	Positive Self Image	Academic	Intelligent	3	+2
11	Positive Self Image	Outgoing	Fun to be With	3	+1
12	Positive Self Image	Outgoing	Good Looking	2	+3
13	A Sense of Difference	Feel Different	Feel Different from Others	5	-2
14	Negative Self Image	Inactive	Lazy	5	-2
15	Negative Self Image	Expressive	Annoying	5	-1
16	Negative Self Image	Emotional	Moody	4	-1
17	Negative Self Image	Expressive	Mess About	4	0
18	Negative Self Image	Hesitant	Shy	3	-1
19	Negative Self Image	Expressive	Cheeky	4	0
20	Negative Self Image	Expressive	Loud	4	-2
21	Negative Self Image	Expressive	Sarcastic/Bitchy	1	0
22	Negative Self Image	Unease	Worry a Lot	4	-2
23	Negative Self Image	Expressive	Bossy	3	-1
24	Negative Self Image	Emotional	Short Tempered	4	-2
25	Negative Self Image	Resourceful	Get Bored	3	-2

This Profile is based upon the SIP-Adolescents, R. J. Butler (2001).
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Appendix 3.2

Self-Image: Observation of Actual Functioning

Date of Assessment: DD.MM.YY

The Self-Image Profiles (SIP) are brief self-report measures that provide a visual display of both self-image and self-esteem. The SIP is concerned, as defined in the manual, with the Following aspects of self:	
Caring	*Kind. Happy. Friendly. Helpful.*
Outgoing/ Confident	*Funny. Sporty. Fun to be with. Good looking.*
Academic	*Hard-working. Intelligent.*
Expressive/ Talkative	*Talkative. Annoying. Mess about. Cheeky. Loud. Sarcastic/Bitchy. Bossy.*
Inactive	*Lazy.*
Emotional/ Moody	*Moody. Short-tempered.*
Hesitant/ Shy	*Hesitant. Shy. Not Confident.*
Resourceful/ Bored	*Get Bored.*
Unease	*Worry a lot.*
Self-Esteem	*Estimated by the discrepancy between ratings of "How I am" and "How I would like to be" (the higher the discrepancy; the lower the self-esteem).*

Aspect	Specific Aspect	Level of Risk	Comments
Positive Self-Image	Caring	**High**	Child X continues to struggle socially to engage appropriately with others. There has been an improvement with this within the house setting however there are ongoing concerns with social presentation in public. He will shy away from social activities that involve other people even if he is not expected to directly engage with them. Child X's sense of humour is more evident than previously and he is able to enjoy appropriate banter with peers and staff which was not evident before. Child X does not present as having a positive self-image.
	Outgoing/Confident		
	Academic		
Negative Self-Image	Expressive/Talkative	**High**	Child X is more confident within the house setting and comfortable in the company of staff and peers that he has developed a relationship with. Child X continues to struggle in expressing himself appropriately and left to his own devices will not manage his free time well. Child X is making more of an attempt to make small talk with others however struggles to do so in context to the general discussion.
	Inactive		
	Emotional/Moody		
	Hesitant/Shy		
	Resourceful/Bored		
	Unease		
Self-Esteem		**High**	There have been occasions during recent months where Child X has demonstrate higher levels of self-esteem than previously, e.g. clothes shopping and modelling new purchases to staff. Child X does however present as having low self-esteem generally and will often state a desire to be different to how he currently is.

Appendix 4.1

Social-Emotional Skills: Self-Report Responding

	Symptom Area	Ratings of Self	Level of Endorsement
12	Adaptability Scale	I try to use different ways of answering hard questions	Seldom True of Me
16	Adaptability Scale	It is easy for me to understand new things	Often True of Me
22	Adaptability Scale	I can understand hard questions	Seldom True of Me
25	Adaptability Scale	I try to stick with a problem until I solve it	Seldom True of Me
30	Adaptability Scale	I can come up with good answers to hard questions	Seldom True of Me
34	Adaptability Scale	I can come up with many ways of answering a hard question when I want to	Seldom True of Me
38	Adaptability Scale	I can easily use different ways of solving problems	Seldom True of Me
44	Adaptability Scale	When answering hard questions I try to think of many solutions	Seldom True of Me
48	Adaptability Scale	I am good at solving problems	Seldom True of Me
57	Adaptability Scale	Even if things get hard, I do not give up	Very Seldom True of Me
1	General Mood Scale	I enjoy having fun	Very Often True of Me
4	General Mood Scale	I am happy	Very Often True of Me
9	General Mood Scale	I feel sure of myself	Very Seldom True of Me
13	General Mood Scale	I think that most things I do will turn out okay	Seldom True of Me
19	General Mood Scale	I hope for the best	Seldom True of Me
23	General Mood Scale	I like to smile	Very Seldom True of Me
29	General Mood Scale	I know things will be okay	Seldom True of Me
32	General Mood Scale	I know how to have a good time	Seldom True of Me
37	General Mood Scale	I am not very happy	Seldom True of Me
40	General Mood Scale	I feel good about myself	Very Seldom True of Me
47	General Mood Scale	I am happy with the kind of person I am	Very Seldom True of Me
50	General Mood Scale	I enjoy the things I do	Often True of Me
56	General Mood Scale	I like my body	Very Often True of Me
60	General Mood Scale	I like the way I look	Seldom True of Me
2	Inter-Personal Scale	I am good at understanding the way other people feel	Seldom True of Me
5	Inter-Personal Scale	I care what happens to other people	Often True of Me
10	Inter-Personal Scale	I usually know how other people are feeling	Seldom True of Me
14	Inter-Personal Scale	I am able to respect others	Often True of Me
20	Inter-Personal Scale	Having friends is important	Seldom True of Me

24	Inter-Personal Scale	I try not to hurt other people's feelings	**Often True of Me**
36	Inter-Personal Scale	I like doing things for others	**Seldom True of Me**
41	Inter-Personal Scale	I make friends easily	**Seldom True of Me**
45	Inter-Personal Scale	I feel bad when other people have their feelings hurt	**Seldom True of Me**
51	Inter-Personal Scale	I like my friends	**Often True of Me**
55	Inter-Personal Scale	I can tell when one of my close friends is unhappy	**Very Often True of Me**
59	Inter-Personal Scale	I know when people are upset, even when they say nothing	**Seldom True of Me**
7	Intra-Personal Scale	It is easy to tell people how I feel	**Seldom True of Me**
17	Intra-Personal Scale	I can talk easily about my feelings	**Often True of Me**
28	Intra-Personal Scale	It is hard to talk about my deep feelings	**Seldom True of Me**
31	Intra-Personal Scale	I can easily describe my feelings	**Seldom True of Me**
43	Intra-Personal Scale	It is easy for me to tell people what I feel	**Seldom True of Me**
53	Intra-Personal Scale	I have trouble telling others about my feelings	**Seldom True of Me**
8	Positive Impression Scale	I like everyone I meet	**Seldom True of Me**
18	Positive Impression Scale	I have good thoughts about everyone	**Seldom True of Me**
27	Positive Impression Scale	Nothing bothers me	**Very Seldom True of Me**
33	Positive Impression Scale	I must tell the truth	**Seldom True of Me**
42	Positive Impression Scale	I think I am the best in everything I do	**Very Seldom True of Me**
52	Positive Impression Scale	I do not have bad days	**Very Seldom True of Me**
3	Stress Management Scale	I can stay calm when I am upset	**Very Seldom True of Me**
6	Stress Management Scale	It is hard for me to control my anger	**Often True of Me**
11	Stress Management Scale	I know how to keep calm	**Seldom True of Me**
15	Stress Management Scale	I get too upset about things	**Seldom True of Me**
21	Stress Management Scale	I fight with people	**Seldom True of Me**
26	Stress Management Scale	I have a temper	**Very Often True of Me**
35	Stress Management Scale	I get angry easily	**Very Often True of Me**
39	Stress Management Scale	It takes a lot for me to get upset	**Seldom True of Me**
46	Stress Management Scale	When I am mad at someone, I stay mad for a long time	**Seldom True of Me**
49	Stress Management Scale	It is hard for me to wait my turn	**Often True of Me**
54	Stress Management Scale	I get upset easily	**Seldom True of Me**
58	Stress Management Scale	When I get angry, I act without thinking	**Often True of Me**

Appendix 4.2

Social-Emotional Skills: Observations of Actual Functioning

Date of Assessment: DD.MM.YY

The sub-scales of the BarOn Emotional Quotient (EQ) allow a level of detail which is particularly useful in treatment planning and in the monitoring of progress both in individual and organisational terms. The sub-scales of the EQ are concerned, as defined in the manual, with the Following aspects of social-emotional skills which are moderated by the general mood of the individual:	
Intra-Personal Skills	*The capacity to understand one's own emotions. Individuals with high Intra-Personal Skills are able to express and communicate their feelings and needs.*
Inter-Personal Skills	*The capacity to understand and appreciate the feelings of others. Individuals with high Inter-Personal Skills are able to have satisfying interpersonal relationships and are good listeners.*
Stress Management	*The capacity to work well under pressure. Individuals with high Stress Management Skills are generally calm and rarely impulsive.*
Adaptability	*The capacity to be flexible and realistic in managing change. Individuals with high Adaptability Skills are good at finding positive ways of dealing with everyday problems.*
General Mood	*The capacity to be pleasant to be with. Individuals with high General Mood have a positive outlook.*
Emotional Quotient	***High** EQ suggests effectiveness in daily life and general happiness.*

Aspect	Level of Risk	Comments
Intra-Personal Skills	**High**	There has been a modest improvement with Child X showing an ability to verbalise his feelings at times with certain staff. However, Child X generally struggles to understand his own emotions and has a very limited emotional vocabulary. He will often state that he is feeling fine when is clearly very upset or angry.
Inter-Personal Skills	**High**	Child X struggles to read the emotional state of other people and will often misunderstand jokes. Child X expresses no empathy generally for other people.
Stress Management	**High**	Child X is highly impulsive in terms of his behaviours of concern and struggles to cope in stressful situations generally. Child X has been supported to develop coping strategies including deep breathing, self-talk and has recently learned EFT (emotional freedom technique). Although Child X can use these techniques in the therapy room he struggles to apply them in real-time situations.
Adaptability	**High**	Child X struggles to cope with change and generally reacts negatively if plans are not going his way. Staff have noted a moderate improvement with Child X showing a resilience on occasion that was not previously displayed at times when plans are changed.
General Mood	**Medium**	There has been a marked improvement in Child X's general mood during the past year. Child X can be pleasant company and will engage well with care, education and PSI staff.
Emotional Quotient	**High**	Child X struggles with the concept of empathy and his general presentation with others would suggest a significant deficit in this domain. Child X can be very pessimistic about how others will perceive him and this leads to a level of social anxiety that prevents him from taking part in many social opportunities. On a day-to-day basis Child X presents as happy within the house setting and comfortable in the company of staff and peers that he knows.

Appendix 5.1

Resilience Skills: Self-Report Responding

	Symptom Area	Subscale	Extreme Ratings	Level of Endorsement
1	Mastery	Optimism	Life is fair	**Sometimes**
2	Mastery	Optimism	I can make good things happen	**Rarely**
3	Mastery	Optimism	I can get the things I need	**Often**
4	Mastery	Optimism	I can control what happens to me	**Sometimes**
5	Mastery	Self-Efficacy	I do things well	**Rarely**
6	Mastery	Self-Efficacy	I am good at fixing things	**Rarely**
7	Mastery	Self-Efficacy	I am good at figuring things out	**Sometimes**
8	Mastery	Self-Efficacy	I make good decisions	**Rarely**
9	Mastery	Self-Efficacy	I can adjust when plans change	**Rarely**
10	Mastery	Self-Efficacy	I can get past problems in my own way	**Rarely**
11	Mastery	Self-Efficacy	If I have a problem I can solve it	**Sometimes**
12	Mastery	Self-Efficacy	If I try hard it makes a difference	**Sometimes**
13	Mastery	Self-Efficacy	If at first I don't succeed, I will keep on trying	**Sometimes**
14	Mastery	Self-Efficacy	I can think of more than one way to solve a problem	**Sometimes**
15	Mastery	Adaptability[1]	I can learn from my mistakes	**Sometimes**
16	Mastery	Adaptability[1]	I can ask for help when I need to	**Rarely**
17	Mastery	Adaptability[1]	I can let others help me when I need to	**Rarely**
18	Mastery	Optimism	Good things will happen to me	**Rarely**
19	Mastery	Optimism	My life will be happy	**Rarely**
20	Mastery	Optimism	No matter what happens, things will be alright	**Rarely**
21	Relatedness	Comfort	I can meet new people easily	**Rarely**
22	Relatedness	Comfort	I can make friends easily	**Rarely**
23	Relatedness	Comfort	People like me	**Rarely**
24	Relatedness	Comfort	I feel calm with people	**Sometimes**
25	Relatedness	Support	I have a good friend	**Rarely**
26	Relatedness	Trust	I like people	**Sometimes**
27	Relatedness	Support	I spend time with my friends	**Rarely**
28	Relatedness	Support	Other people treat me well	**Often**
29	Relatedness	Support	I can trust others	**Sometimes**
30	Relatedness	Support	I can let others see my real feelings	**Sometimes**
31	Relatedness	Tolerance[2]	I can calmly tell others that I don't agree with them	**Sometimes**
32	Relatedness	Tolerance[2]	I can make up with friends after a fight	**Sometimes**
33	Relatedness	Tolerance[2]	I can forgive my parent(s) if they upset me	**Sometimes**
34	Relatedness	Tolerance[2]	If people let me down, I can forgive them	**Often**
35	Relatedness	Tolerance[2]	I can depend on people to treat me fairly	**Often**
36	Relatedness	Tolerance[2]	I can depend on those closest to me to do the right thing	**Often**
37	Relatedness	Tolerance[2]	I can calmly tell a friend if he or she does something that hurts me	**Sometimes**
38	Relatedness	Support	If something bad happens I can ask my friends for help	**Rarely**

39	Relatedness	Support	If something bad happens I can ask my parent(s) for help	**Never**
40	Relatedness	Support	There are people who will help me if something bad happens	**Almost Always**
41	Relatedness	Support	If I get upset or angry, there is someone I can talk to	**Almost Always**
42	Relatedness	Support	There are people who love and care about me	**Almost Always**
43	Relatedness	Support	People know who I really am	**Often**
44	Relatedness	Support	People accept me for who I really am	**Often**
45	Reactivity	Sensitivity	It is easy for me to get upset	**Often**
46	Reactivity	Sensitivity	People say that I am easy to upset	**Often**
47	Reactivity	Sensitivity	I strike back when someone upsets me	**Often**
48	Reactivity	Sensitivity	I get very upset when things don't go my way	**Often**
49	Reactivity	Sensitivity	I get very upset when people don't like me	**Often**
50	Reactivity	Sensitivity	I can get so upset that I can't stand how I feel	**Rarely**
51	Reactivity	Impairment	I get so upset that I lose control	**Often**
52	Reactivity	Impairment	When I get upset I don't think clearly	**Often**
53	Reactivity	Impairment	When I get upset, I react without thinking	**Often**
54	Reactivity	Recovery	When I get upset, I stay upset for about one hour	**Rarely**
55	Reactivity	Recovery	When I get upset, I stay upset for several hours	**Rarely**
56	Reactivity	Recovery	When I get upset, I stay upset for the whole day	**Never**
57	Reactivity	Recovery	When I get upset, I stay upset for several days	**Never**
58	Reactivity	Impairment	When I am upset, I make mistakes	**Sometimes**
59	Reactivity	Impairment	When I am upset, I do the wrong thing	**Sometimes**
60	Reactivity	Impairment	When I am upset, I get into trouble	**Often**
61	Reactivity	Impairment	When I am upset, I do things that I later feel bad about	**Sometimes**
62	Reactivity	Impairment	When I am upset, I hurt myself	**Sometimes**
63	Reactivity	Impairment	When I am upset, I hurt someone	**Rarely**
64	Reactivity	Impairment	When I am upset, I get mixed up	**Sometimes**

[1] Adaptability subscale scored and interpreted for ages 15-18 only.
[2] Tolerance subscale not scored or interpreted for ages 9-11.

This Profile is based upon the Resiliency Scales, Harcourt Assessment, 2007.
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Appendix 5.2

Resilience Skills: Observations of Actual Functioning

Date of Assessment: DD.MM.YY

The Resiliency Scales for Children and Adolescents (RSCA) allows a level of detail which is particularly useful in treatment planning and in the monitoring of progress both in individual and institutional terms. The RSCA are concerned, as defined in the manual, with the following aspects of resilience skills:	
Optimism	*Positive attitude(s) about the world/life in general and about an individual's life specifically, currently, and in the future.*
Self-Efficacy	*One's approach to obstacles or problems, a sense of competence. The higher the efficacy, the greater the resilience that will be demonstrated.*
Adaptability	*Ability to be personally receptive to criticism, and to learn from one's mistakes.*
Comfort	*Degree to which an individual can be in the presence of others without discomfort or anxiety.*
Support	*Individual's belief that there are others they can turn to when dealing with adversity. This subscale measures the youth's perceived access to support rather than actual support.*
Trust	*The degree to which others are perceived as reliable and accepting, and the degree to which an individual can be authentic in these relationships.*
Tolerance	*The individual's belief that he or she can safely express differences within a relationship.*
Sensitivity	*The threshold for reaction and the intensity of the reaction.*
Impairment	*Degree to which the youth is able to maintain an emotional equilibrium when aroused. Examples: losing control, making mistakes, not thinking clearly and getting into trouble.*
Recovery	*Ability to bounce back from emotional arousal or disturbance of emotional equilibrium. i.e. "When I get upset, I stay upset for several hours…".*
Resource	*Positive strengths available to the young person.*
Vulnerability	*Personal vulnerability is quantified and estimated by a discrepancy between the youth's emotional reactivity scale score and his or her resource index.*

Aspect	Specific Aspect	Level of Risk	Comments
Mastery	Optimism	**High**	Child X now presents as more optimistic about his current situation and events in the near future. Child X has low levels of optimism about the future and struggles to see a positive life path for himself. Staff have observed an improvement on Child X's ability to reflect and learn from situations that have caused him difficulty, however it is considered that this is less to due to empathy and more down to a personal perspective of getting what he wants.
	Self-Efficacy		
	Adaptability		
Relatedness	Comfort	**Medium**	Child X has developed trusting relationships with the staff team at [redacted] and is comfortable in their company. Child X is more tolerant of other people within the house setting and learning zone. Outwith these familiar comfort zones, Child X continues to be ill at ease and socially inappropriate.
	Support		
	Trust		
	Tolerance		
Reactivity	Sensitivity	**High**	Child X remains very sensitive and emotionally volatile with a low threshold for losing his temper. There has been a moderate improvement in Child X's ability to recover from negative incidents with less of a hangover than was previously evident.
	Impairment		
	Recovery		
Resource		**High**	Child X does not easily draw on positive resources, either internally or externally to help him manage day to day life.
Vulnerability		**High**	Child X presents as very vulnerable in terms of the lack of personal resources and protective factors that he has in relation to the degree of emotional reactivity he displays.

Appendix K. The Rickter Scale Personal Action Plan.

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THE RICKTER SCALE ®

0 1 2 3 4 5 6 7 8 9 (10)

EVIDENCE SHEET / PERSONAL ACTION PLAN

NAME:	Child X	REF NO:	PSI/SD	DATE:	00/00/00
FRAME OF REFERENCE:	R&R 2	LOCATION:	Redacted		

HEADING / QUESTION	Baseline Evidence:- PRESENT STATE Action Plan:- DESIRED STATE	
1 Anger Control How well do you feel you control your emotions like anger ? Ten: very well, Zero: not very well at all.	Child X described having no control over his emotions, particularly anger. Child X also described having difficulty sleeping due to different thoughts and feelings keeping him awake, e.g. a fear of the dark.	
	What?	Child X agreed that he would like to manage his negative feelings and anger in particular.
	How?	Relaxation CD for sleep. Taking part in R&R2. Biofeedback for relaxation. Manage anger towards [redacted].
	When?	Relaxation CD provided to Child X today. Biofeedback to be introduced during later R&R2 sessions.
2 Offend. Beh. (R) How much is offending behaviour a part of your life? Ten: a big part, Zero: no part at all.	Child X feels that offending behaviour plays no part in his life currently. He feels that this this because he does not have the opportunity to offend as he is always with staff in [redacted]and does not get the change to mess around with kids his own age.	
	What?	No action.
	How?	N/A
	When?	N/A
3 Relationships How happy are you with your relationships? 10: very happy, 0: not happy at all.	Child X chose to focus the discussion around his relationships with staff generally at [redacted]. Child X feels he has developed good relationships with staff, although they can be annoying at times, and does not wish to improve this further.	
	What?	No action.
	How?	N/A
	When?	N/A
4 Influences (R) How much are you influenced by others to do things that you really do not want to do? Ten: very influenced, Zero: not influenced at all.	Child X considers himself to be influenced by [redacted] to do things that he would not do otherwise, specifically taking part in negative behaviours.	
	What?	Reduce influence of [redacted].
	How?	"Stop listening to [redacted]". Taking part in R&R2.
	When?	R&R2 sessions ongoing over next 4 months.
5 Listening How well do you feel you listen to other people? 10: very well, 0: not very well at all.	Child X considers himself to be capable of listening to other people depending on what they are saying to him. Child X does not want to make any changes to this area.	
	What?	No action.
	How?	N/A
	When?	N/A
6 Challenges How well do you feel you cope with any challenges you have in your life? Ten: very well, Zero: not very well at all.	Child X considers himself to be "pure shit" at dealing with challenges when faced with them. Child X used the example of feeling too scared of [redacted] to even come out of his room sometimes; fear of verbal and physical abuse from [redacted].	
	What?	Improve ability to deal with challenges in life. Develop more confidence around [redacted].
	How?	Taking part in R&R2. Stop listening to [redacted].
	When?	R&R2 sessions ongoing over next 4 months.
7 Decisions How confident are you to make any decisions in your life? Ten: very confident, Zero: not confident at all.	Child X considers himself to be "rubbish" at making decisions. He has been told this by other people throughout his life. Dad has been a positive help with this by encouraging Child X to make his own decisions in the past.	
	What?	Develop confidence in own decision making ability.
	How?	Notice when being indecisive and make small decisions. Taking part in R&R2.
	When?	Now and ongoing. R&R2 sessions ongoing over next 4 months.
8 Alcohol (R) How much is alcohol a part of your life? Ten: a big part, Zero: no part at all.	Although alcohol does not play a part in Child X's life currently he rated himself on the scale for this as he feels that "if I could then I would" with his current levels of supervision being the only thing stopping him from drinking.	
	What?	No action.
	How?	N/A
	When?	N/A
9 Drugs (R) How much are alcohol or drugs a part of your life? 10: a big part, 0: no part at all.	Child X focussed the discussion around his ADHD medication (Medikinet). Child X would like to be taken off his medication as he does not like the way that this makes him feel.	
	What?	Trial period without any ADHD medication.
	How?	Only under the direction of Child X's psychiatrist Dr [redacted].
	When?	Consideration to be given during regular ongoing medication reviews with psychiatrist Dr [redacted].
10 Happiness How happy are you at this time in your life? 10: you are very happy, 0: you are not happy at all.	"I am never happy in this place". Child X considers [redacted] to be the most significant contributor to his current unhappiness.	
	What?	Become happier.
	How?	Learn to manage fear of [redacted] and negative feelings towards her.
	When?	R&R2 sessions ongoing over next 4 months.

Practitioner's Signature:_____ **Client's Signature:**_____

Appendix L. The Rickter Scale Baseline Profile.

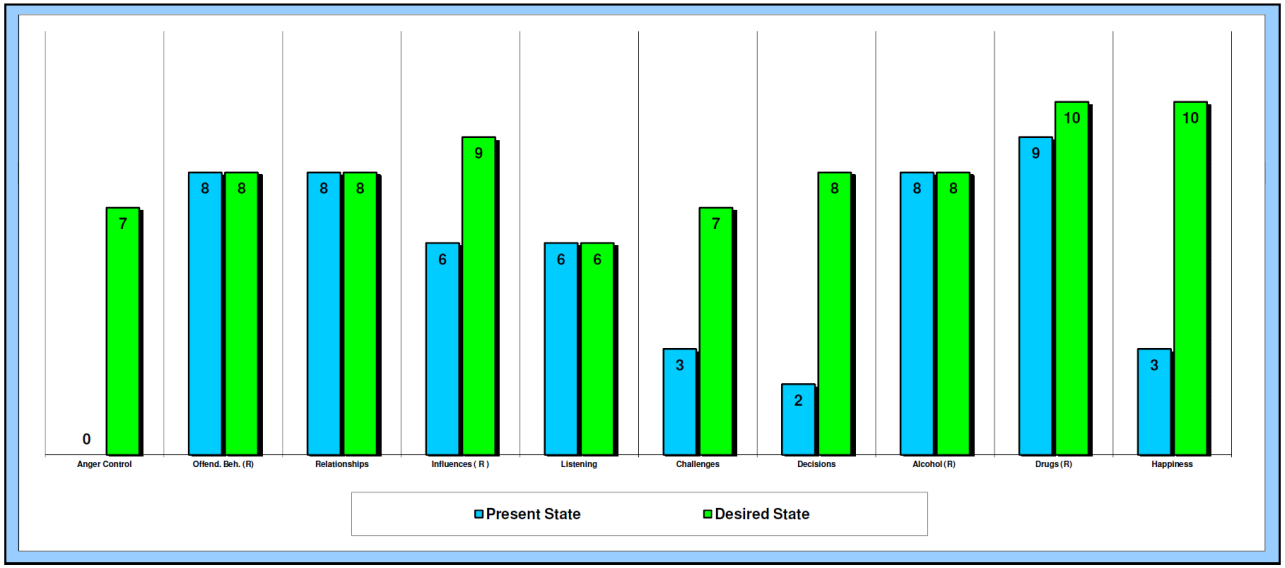
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0 1 2 3 4 5 6 7 8 9 (10)

Baseline Profile

NAME:	Child X	BASELINE PROFILE ~ DATE	00/00/00
LOCATION:	Redacted		



Total of scalings for Baseline Profile - Present State:	53
Total of scalings for Baseline Profile - Desired State:	81

Appendix M. The Rickter Scale Action Plan Review.

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0 1 2 3 4 5 6 7 8 9 (10)

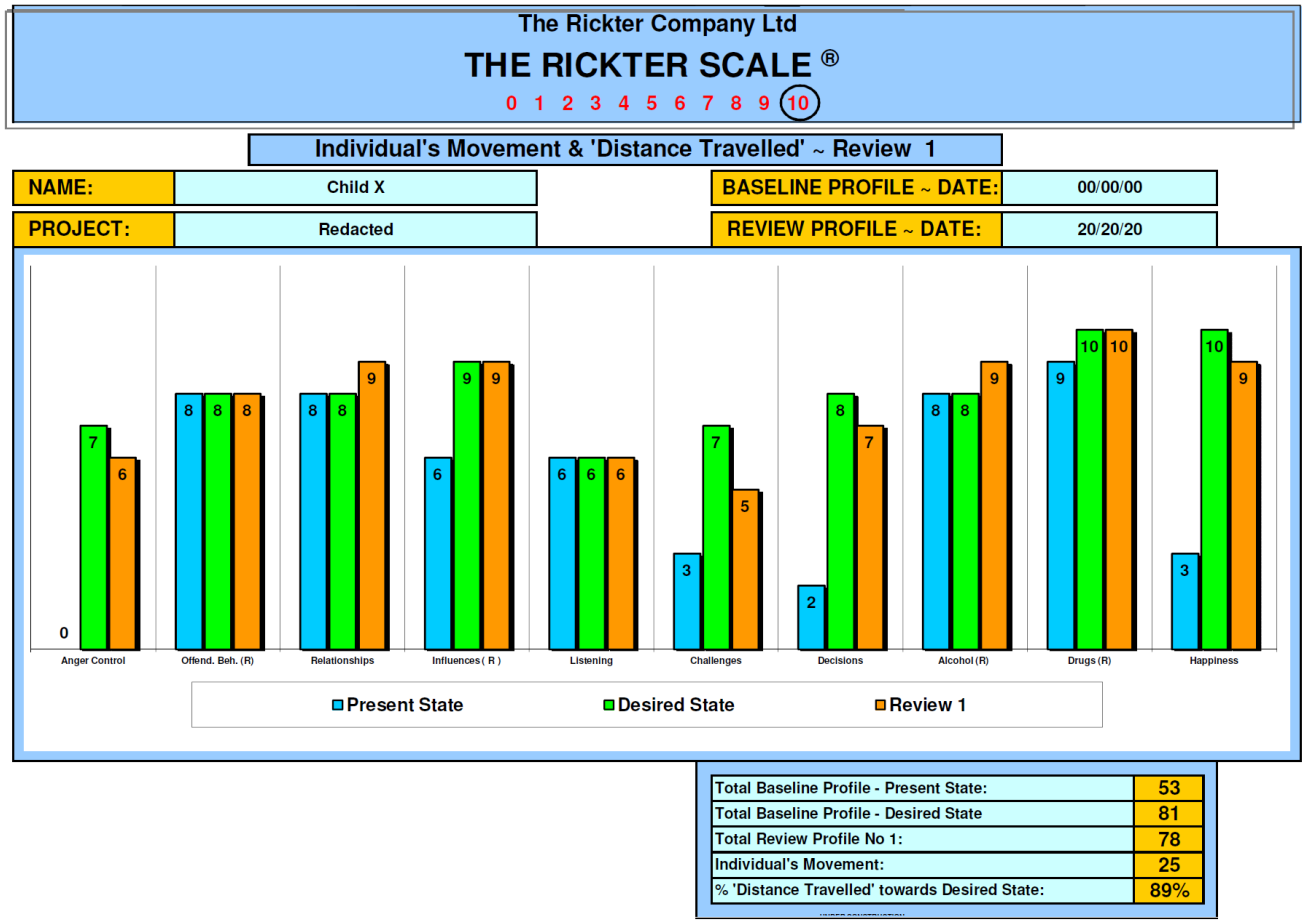
REVIEW SHEET ~ 1

NAME:	Child X	REF NO:	PSI/SD	DATE:	20/20/20
FRAME OF REFERENCE:	R&R 2	LOCATION:	Redacted		

HEADING / QUESTION	Review Evidence / Comments *(Client's movement towards Desired State)*
1 Anger Control How well do you feel you control your emotions like anger ? Ten: very well, Zero: not very well at all.	Child X described sleeping better now and feeling better about his ability to control his emotions, particularly anger. "I don't know, it is like I have been given power to control it".
2 Offend. Beh. (R) How much is offending behaviour a part of your life? Ten: a big part, Zero: no part at all.	Child X described no change to this area currently. Child X noted that he has continued to be involved in negative behaviour at times, focussing on being physically held by staff recently when unsettled during the school day. (24th and 25th September).
3 Relationships How happy are you with your relationships? 10: very happy, 0: not happy at all.	Child X is surprised at how much this area of his life has improved, describing "having a laugh" with staff that he never thought he would ever get on with at [redacted]. Child X is also pleased with his progress at getting to attend education on the main campus and he has formed relationships with some peers there, particularly [redacted].
4 Influences (R) How much are you influenced by others to do things that you really do not want to do? Ten: very influenced, Zero: not influenced at all.	Child X feels that he is no longer as easily influenced by other people to do things that he knows are wrong. Child X described a recent scenario where a peer had a positive influence on him, encouraging him to ignore hurtful comments from a peer during the school day.
5 Listening How well do you feel you listen to other people? 10: very well, 0: not very well at all.	Child X described no change to this area currently. Child X considers himself to be capable of listening to other people, depending on what they are saying to him.
6 Challenges How well do you feel you cope with any challenges you have in your life? Ten: very well, Zero: not very well at all.	Child X feels that he is much better at dealing with challenges than previously. "I just can".
7 Decisions How confident are you to make any decisions in your life? Ten: very confident, Zero: not confident at all.	Child X is very pleased with his progress in this area. "It's like I am taking my life back".
8 Alcohol (R) How much is alcohol a part of your life? Ten: a big part, Zero: no part at all.	As previously, Child X feels that although alcohol does not play a part in his life currently, "I would if I could", with lack of availability of alcohol being the main reason he does not drink.
9 Drugs (R) How much are alcohol or drugs a part of your life? 10: a big part, 0: no part at all.	Child X describes now being completely happy with his medication (Medikinet) arrangements in light of the ongoing reduction in dosage which is something he has been requesting for some time.
10 Happiness How happy are you at this time in your life? 10: you are very happy, 0: you are not happy at all.	Child X feels much happier than he did six months ago. "Things are getting better". Child X considers "maybe moving to through-care and me now getting to go to the school on campus" as being the most significant events that have contributed to his happiness recently.

Practitioner's Signature:_____ **Client's Signature:**_____

Appendix N. The Rickter Scale Review Profile.



Appendix O. TSCC Psychometric Properties.

The TSCC (Briere et al., 2001) is a self-report measure of posttraumatic distress and related psychological symptomatology, intended for use in the evaluation of children and adolescents (aged 8 to 16 years old) who have experienced traumatic events. Children generally have a shorter attention span than adults, especially those who have been psychologically traumatised (e.g., Lipschitz, Morgan & Southwick, 2002). Appropriately, the TSCC consists of a relatively small number of trauma-responsive items. The various scales of the TSCC assess a wide range of psychological impacts. There are 54 items (See Appendix F) that yield two validity scales (Under-response and Hyper-response); six clinical scales (Anxiety, Depression, Anger, Posttraumatic Stress, Dissociation [with two subscales; Fantasy and Overt], and Sexual Concerns [with two subscales; Pre-occupation and Distress]); and eight critical items. For each trauma-responsive item on the TSCC the respondent rates their experience of frequency from 0= "Never" to 3= "Almost all of the time". The TSCC takes 15 – 20 minutes to administer.

An important step during the interpretation of the TSCC is close examination of each of the eight critical items along with

their frequency of endorsement in the normative sample. These items, which examine potential self-injury, suicidal ideation, desire to harm others, expectations of sexual maltreatment, involvement in fights, fear of men, fear of women and fear of being killed, suggest problems or issues that require more immediate clinical attention. All non-zero scores were followed up routinely with further assessment (e.g., the Suicidal Ideation Questionnaire (SIQ; Reynolds, 1988), and external referrals made as appropriate. The manual recommends further enquiry for non-zero responses to a critical items regarding the level and meaning of the critical response (Briere, 1996). .

As reported in the TSCC user manual (Briere, 1996), reliability analysis of the TSCC scales in the normative sample demonstrated high internal consistency for 5 out of the 6 clinical scales (α s range from .82 to .89). The remaining clinical scale, Sexual Concerns (SC), was moderately reliable (α = .77). The 4 clinical subscales varied in reliability, with Dissociation – Overt (DIS-O) and Sexual Concerns – Preoccupation (SC-P) having relatively high internal consistency (α s of .81 in each instance), and the shorter Dissociation – Fantasy (DIS-F) and Sexual Concerns – Distress (SC-D) scales being somewhat less reliable (α s of .58 and .64, respectively). The two validity scales, Under-responding

(UND) and Hyper-Responding (HYP) had α coefficients of .85 and .66 respectively.

The 54 checklist items have been included in several studies of child abuse impacts (e.g., Friedrich, 1991; Elliot & Briere, 1994; Lanktree & Briere, 1995), where reliability and validity analyses suggested no further need for scale refinement (Briere, 1996). Following determination of the psychometric quality of the TSCC, two validity scales were derived from existing TSCC items (UND & HYP [see Appendix G a description and interpretation of the scales]).

Appendix P. AQ Psychometric Properties.

The Aggression Questionnaire (AQ; Buss & Warren, 2000) is a self-report measure of aggression intended for evaluation of an individual's (aged 9 to 88) aggressive responses, and ability to channel those responses in a safe and constructive manner.

The AQ is an evolved version of the Buss-Durkee Hostility Inventory (BDHI; Buss & Durkee, 1957); a long time standard test for assessing anger and aggression (Buss & Warren, 2000). The BDHI was considered lengthy and complicated with 75 items some of which were reverse scored and some items that could fit into more than one scale (Buss & Warren, 2000). Additionally, the true-false structure proved difficult with some populations (Buss & Warren, 2000). Therefore the AQ was initially developed as an easier, shorter, updated version of the BDHI by Buss and Perry (1992). Buss and Warren (2000) have further developed the AQ with an additional scale consisting of indirect aggression.

The AQ has 34 items on 5 scales; Physical Aggression (PHY), Verbal Aggression (VER), Anger (ANG), Hostility (HOS) and Indirect Aggression (IND) (See Table 23). It also provides an AQ Total score and an Inconsistent Responding (INC) index

score as a validity indicator. See Table 24 for a description of the AQ clinical scales and their interpretation.

Each AQ item describes a characteristic related to aggression and the respondent rates the description on a scale from 1= "Not at all like me" to 5= "Completely like me". The brevity and easy reading level makes it particularly suitable for use with the current sample who may find it difficult to complete more complex measures. The AQ takes 10 minutes to administer.

The norms of the AQ are based on a standardisation sample of 2,138 individuals, aged 9 to 88. Satisfactory nine week test–retest correlations (Physical Aggression, .80; Verbal Aggression, .76; Anger, .72; and Hostility, .72 (total score=.80) were initially obtained in a sample of adolescents (Buss & Perry, 1992). Internal consistency reliability reported by Buss and Perry (1992) are as follows: Physical Aggression = 0.85, Verbal Aggression = 0.72, Anger = 0.83, Hostility = 0.77 and the total score = 0.89. Bryant and Smith (2001) discuss the advantages of the newer 34-item AQ (Buss & Warren, 2000), as opposed to the 29 item AQ (Buss & Perry, 1992), including the availability of (a) more extensive evidence supporting construct validity, (b) large-scale national norms, (c) a reliable subscale to tap Indirect Aggression, and

(d) a single, fixed order for the AQ items. The test can be administered to respondents either individually or in groups.

Table 23. AQ Symptom Areas and Items

Taken and adapted from Buss & Warren (2000).

Levels of endorsement include "A little like me", "Somewhat like me", "Very much like me" and "Completely like me".

Symptom Area		Items
1	Verbal	My friends say that I argue a lot.
2	Hostility	Other people always seem to get the breaks.
3	Anger	I flare up quickly, but get over it quickly.
4	Verbal	I often find myself disagreeing with people.
5	Hostility	At times I feel I have gotten a raw deal out of life.
6	Verbal	I can't hep getting into arguments when people disagree with me.
7	Anger	At times I get angry for no good reason.
8	Physical	I may hit someone if he or she provokes me.
9	Hostility	I wonder why sometimes I feel so bitter about things.
10	Physical	I have threatened people I know.
11	Physical	Someone has pushed me so far that I hit him or her.
12	Anger	I have trouble controlling my temper.
13	Indirect	If I'm angry enough, I may mess up someone's work.

14	Indirect	I have been mad enough to slam a door when leaving someone behind in the room.
15	Indirect	When people are bossy, I take my time doing what they want, just to show them.
16	Hostility	I wonder what people want when they are nice to me.
17	Physical	I have become so mad that I have broken things.
18	Indirect	I sometimes spread gossip about people I don't like.
19	Anger	I am a calm person
20	Verbal	When people annoy me, I may tell them what I think of them.
21	Hostility	I sometimes feel like people are laughing at me behind my back.
22	Anger	I let my anger show when I do not get what I want.
23	Physical	At times I can't control the urge to hit someone.
24	Physical	I get into fights more than most people.
25	Physical	If somebody hits me, I hit back.
26	Verbal	I tell my friends openly when I disagree with them.
27	Physical	If I have to resort to violence to protect my rights, I will.
28	Hostility	I do not trust strangers who are too friendly.
29	Anger	At times I feel like a bomb ready to explode.
30	Indirect	When someone really irritates me, I might giver him or her the silent treatment.
31	Hostility	I know that "friends" talk about me behind my back.

32	Anger	Some of my friends think I am a hothead.
33	Hostility	At times I am so jealous I can't think of anything else.
34	Indirect	I like to play practical jokes.

Table 24. Description and Interpretation of AQ Items. Information taken and adapted from Buss & Warren (2000).

Description of AQ Clinical Scales & Interpretation	
Scale	**Item Content**
Clinical Scales	
AQ Total	**Description** The AQ total is based on all 34 items. It is a good summary level of anger and aggression that the person has reported. It is highly related to all 5 subscales but most closely associated to PHY and ANG subscales scores. As with the subscales, the AQ total is based on statements pertaining to the FREQUENCY and INTENSITY of aggressive behaviour, thoughts and feelings. Therefore a high score can be obtained if a person reports relatively few but extremely intense angry or aggressive episodes, as well as a person who reports lots of episodes but that are less intense.
	Interpretation When the AQ total is high, it is important to examine the subscales and other available information. The intervention depends on what subscales they are high on. For example if a person had high levels of anger and hostility but low levels of physical or verbal aggression, we would examine the person's vulnerability to depression, suicide, or chronic physical health problems. If a person had high levels of physical or verbal aggression we would work on impulse control, personal safety, or legal concerns.

Physical Aggression (PHY)	**Description** This subscale has 8 items that focus on the use of physical force when expressing anger or aggression. High scores indicate a lack of ability to control urges towards physical aggression.
	Interpretation Young people with ADHD, and to a lesser extent, Conduct Disorder tend to get High PHY scores. These young people often have disrupted relationships with authority figures in their environment and sometimes with their peers. For some people, high PHY scores can be due to extremely high levels of arousal, irritability or anger. In other cases, there may be a lack of knowledge about suitable alternative ways of coping with provocation or frustration. People can have both of these elements. Those with high PHY scores tend to justify their acts in their own minds saying that they were provoked by others. They are more likely than others to respond aggressively if they are ashamed or humiliated. Low PHY scores may show an absence of physically aggressive behaviour and a relatively strong ability to control physically aggressive impulses. It could also result if the individual was reluctant to disclose information when giving responses.

Verbal Aggression (VER)	**Description** This subscale has 5 items that relate to quarrelsome and hostile speech. High scores indicate that these people are aware of a tendency to be more argumentative than most people. High VER scores are often obtained from young people or adults, who feel frustrated or under stress.
	Interpretation People with High VER scores are commonly aroused to anger by situations they perceive to be unfair. They may feel often alienated by or bored with their current circumstances. High VER scores are obtained by people described as "externalisers", particularly those with a relatively high level of social adaptation. Children with anxiety disorders, such as panic disorder, phobias, or separation anxiety, and those with conduct disorder are likely to get high scores. Aggression related to neurological injury or degeneration will often be reflected in high VER scores. Low VER scores are gained from people who do not see themselves as being argumentative. People who are hesitant to assert themselves under most circumstances will get low scores. As with the PHY scale, low VER scores may indicate not being willing to get involved in verbal disagreements, or can reflect a defensiveness in responding to AQ items.
Anger (ANG)	**Description** This subscale has 7 items that describe aspects of anger related to

	arousal and sense of control. High scores are often associated with the presence of irritability, frustration, emotional lability, and temperamental gesturing.
	Interpretation High ANG scores are often obtained by children with conduct disorder. Scores on the ANG scale are the most responsive to building up effective and acceptable coping strategies. Low ANG scores are obtained by those who do not tend to perceive strong physical arousal as a component of their anger. Low scores are obtained by those with narcissistic or histrionic personality characteristics.
Hostility (HOS)	**Description** The HOS scale is most closely associated with pervasive social maladjustment, severe psychopathy and physical illness. It has 8 items which represent attitudes of bitterness, social alienation and paranoia. When this scale has a high score the implications of elevations on the other scales are magnified as the individual is in a state of social alienation and therefore not able to take into account the feelings & needs of others.
	Interpretation Affective disturbance and social isolation are likely to be present for high HOS scorers. They usually experience a high proportion of angry thoughts and generate internalised reactions to perceived assaults on their wellbeing by others. They may suffer chronic

	depressive symptoms associated with dysthymia, eating disorders, social phobias, or obsessive compulsive disorders. Oppositional children or adults with passive aggressive or borderline personality characteristics tend to obtain High HOS scores. High scorers are more likely to give defensive responses to items on other AQ scales. Low HOS scorers may feel comfortable in their current social surroundings. Some may distort reality to deny or repress their criticisms of others, feelings of bitterness, or suspicions about others' motives, even when such reactions are well justified. People with histrionic personality characteristics are likely to obtain Low scores.
Indirect Aggression (IND)	**Description** This scale has 6 items which measures the tendency to express anger in actions that avoid confrontation.
	Interpretation Young people with high IND scores may be seen as oppositional or avoidant and they will often have disrupted peer relationships. Low IND scorers are likely to be willing to use direct confrontation to resolve conflicts in their lives. Extreme low scores may indicate a defensive approach to giving AQ responses.
Inconsistent Responding Index (INC)	**Description** As the AQ is brief, it is hard to create strong, statistically based procedures for those who represent themselves falsely. The INC

	index is unlikely to uncover sophisticated falsifiers but may help identify unusual levels of inconsistency in response items when a person tries to "fool the test". It also helps detect when there has been carelessness in completing the form or a lack of attention to the test items. The INC index is based on 12 pairs of items from the AQ for which responses tend to be similar. The INC score is a count of the number of paired items for which the responses differ by more than 1 point. When the INC score is 5, there is 69% likelihood that the item responses were not consistently based on the content of the AQ items. This increases to 83% for a score of 6, 91% for a score of 7, 95% fro a score of 8 etc. Therefore when the INC score is 5 or more the clinician should question the accuracy of the individual's AQ scores.
	Interpretation The content of an item pair where the response has differed by more than 1 point should be examined and where possible, the respondent questioned of the discrepancy. These things will help the clinician discern the extent to which the accuracy of the remaining AQ scores is compromised by the inconsistent responding. If there is a reasonable explanation, e.g. misreading the item, misunderstanding the item, accidentally marking a response than what they intended, or a special circumstance in the person's life explains the unusual response pattern, it should be noted in the reporting of the AQ scores. Otherwise, interpretation of the scores should be undertaken with caution and the inconsistency in the responses should be noted in all reporting of AQ scores.

Appendix Q. SIP Psychometric Properties

The Self Image Profiles (SIP) are brief self report measures that tap the individual's theory of self. There are 2 forms; the SIP-C (Table 25) for children aged 7 to 11 years and the SIP-A for adolescents aged 12 to 16 years (Table 26, Appendix 3) (Butler, 2001). The SIP provides a visual display of Self Image, enabling the young person to reveal to themselves, as well as to the clinician, the way in which they construe themselves as they complete it. The SIP also provides a measure of Self Esteem, which is calculated by the discrepancy between ratings of 'How I am' and 'How I would like to be'. Both the SIP-A and SIP-C consist of 25 familiar self descriptions; 12 of a positive nature, 12 with a negative slant and one neutral item (See Tables 36 and 37.

Participants are asked to consider each self-description item and shade the box according to "how you think you are" using a 0-6 scale, where 0 means "not at all" like the description, up to 6 which means "very much" like the description. Young people are reminded that they can use any number along the scale to show "how you think you are yourself". They then consider each item again and place a star in the box according to "how you would like to be". The SIP-A takes 9 to 17 minutes to administer and the SIP-C takes 12 to 25 minutes.

Reliability estimates for the SIP are discussed in the user manual (Butler, 2001). Butler and Green (1998) initially developed the SIP-C from a clinical population of children aged between 7 and 11

years, referred to a clinical psychology service with a range of presentations; including behavioural, academic, emotional and social problems. Over a five year period children were asked to describe themselves in a number of ways, in sympathy with a personal construct theory approach (Butler & Green, 1998). From the large number of elicited descriptions, the most frequent were organised into a scale which became the original SIP-C (Butler, 1994). Butler and Green (1998) introduced a second rating of "how I would like to be" which enabled a discrepancy score to be derived, which in turn they postulate to represent a measure of self-esteem. Further development of the SIP-C scale items was undertaken by Cecchi (1998) with a non-clinical sample of 118 children from a school in south Leeds which led to the rewording and removal of some items (Butler, 2001).

Butler (2001) later developed the SIP-A using randomly selected 892 young people from two classes from each year of three secondary schools in the Leeds area; postulated to cover a range of socio-economic status. Through a survey, the young people were asked "If you could describe yourself in three ways, what would they be?" A balanced range of the most frequently elicited descriptions (across age and gender) were selected to form a scale that resembles the SIP-C.

Butler (2001) suggests that, in line with Personal Construct Psychology (Bannister & Fransella, 1986), if the SIP makes sense to the child, taps their vision of self and reveals patterns that the

clinician can usefully harness that it will have served its purpose. However, both the SIP-C and SIP-A have been subjected to a more traditional validation analysis. The SIP-C and SIP-A were measured against The Self Perception Profile for Children (SPPC; Harter, 1985) for construct validity. The SPPC was selected due to covering the same age range (7 – 16 years), having good psychometric properties, and being unique amongst self concept scales in being multidimensional (especially relevant to the SIP Aspects of Self scores (Butler, 2001). A significant relationship ($p<0.01$) was established between SIP-C scale scores and those of the SPPC, indicating that the SIP-C self-image and self-esteem scores appear to be measuring the same theoretical construct of self identity or concept as the SPPC (Butler, 2001). A similarly significant relationship ($p<0.01$) was established between SIP-A scale scores and those of the SPPC, indicating that the SIP-A self-image and self-esteem scores appear to be measuring the same theoretical construct of self identity or concept as the SPPC (Butler, 2001). In terms of reliability, the SIP-C was found to be self-consistent, with alpha coefficients calculated at 0.69 for both Positive Self-Image and Negative Self-Image. The SIP-A was also found to be self-consistent with an alpha coefficient of 0.69 for Positive Self-Image and 0.79 for Negative Self-Image (Butler, 2001).

Table 25. SIP-C Items and Aspects of Self.

Taken from Butler (2001).

Levels of endorsement range from 0 (not at all) to 6 (very much).

Self Image		Aspects of Self	Rated Items	Level of Endorsement 0 Not At All – 6 Very Much	Expressed Wish to Change
1	Positive Self Image	Social	Kind	?	?
2	Positive Self Image	Social	Happy	?	?
3	Positive Self Image	Social	Friendly	?	?
4	Positive Self Image	Outgoing	Funny	?	?
5	Positive Self Image	Social	Helpful	?	?
6	Positive Self Image	Academic	Hard Working	?	?
7	Positive Self Image	Outgoing	Lively	?	?
8	Positive Self Image	Social	Honest	?	?
9	Positive Self Image	Outgoing	Like Sport	?	?
10	Positive Self Image	Academic	Brainy	?	?
11	Positive Self Image	Social	Sensitive	?	?
12	Positive Self Image	Appearance	Like the Way I Look	?	?
13	A Sense of Difference	Emotional	Feel Different from Others	?	?
14	Negative Self Image	Behaviour	Lazy	?	?
15	Negative Self Image	Emotional	Get Picked on	?	?
16	Negative Self Image	Behaviour	Moody	?	?
17	Negative Self Image	Behaviour	Mess About in Class	?	?
18	Negative Self Image	Emotional	Shy	?	?
19	Negative Self Image	Behaviour	Always in Trouble	?	?
20	Negative Self Image	Behaviour	Cheeky	?	?
21	Negative Self Image	Behaviour	Teases Others	?	?
22	Negative Self Image	Emotional	Easily Upset	?	?
23	Negative Self Image	Behaviour	Bossy	?	?
24	Negative Self Image	Behaviour	Bad Tempered	?	?
25	Negative Self Image	Resourceful	Get Bored Easily	?	?

Table 26. SIP-A Items and Aspects of Self.

Taken from Butler (2001).

Levels of endorsement range from 0 (not at all) to 6 (very much).

Self Image		Aspects of Self	Rated Items	Level of Endorsement 0 Not At All – 6 Very Much	Expressed Wish to Change
6	Positive Self Image	Academic	Hard Working	?	?
10	Positive Self Image	Academic	Intelligent	?	?
1	Positive Self Image	Caring	Kind	?	?
2	Positive Self Image	Caring	Happy	?	?
3	Positive Self Image	Caring	Friendly	?	?
5	Positive Self Image	Caring	Helpful	?	?
16	Negative Self Image	Emotional	Moody	?	?
24	Negative Self Image	Emotional	Short Tempered	?	?
15	Negative Self Image	Expressive	Annoying	?	?
17	Negative Self Image	Expressive	Mess About	?	?
19	Negative Self Image	Expressive	Cheeky	?	?
20	Negative Self Image	Expressive	Loud	?	?
21	Negative Self Image	Expressive	Sarcastic/Bitchy	?	?
23	Negative Self Image	Expressive	Bossy	?	?
7	Positive Self Image	Expressive	Talkative	?	?
13	A Sense of Difference	Feel Different	Feel Different from Others	?	?
18	Negative Self Image	Hesitant	Shy	?	?
14	Negative Self Image	Inactive	Lazy	?	?
4	Positive Self Image	Outgoing	Funny	?	?
9	Positive Self Image	Outgoing	Sporty	?	?
11	Positive Self Image	Outgoing	Fun to be With	?	?
12	Positive Self Image	Outgoing	Good Looking	?	?
8	Positive Self Image	Outgoing/Hesitant	Confident	?	?
25	Negative Self Image	Resourceful	Get Bored	?	?
22	Negative Self Image	Unease	Worry a Lot	?	?

Appendix R. Bar-On EQ-i:YV Psychometric Properties.

The Bar-On Emotional Quotient Inventory: Youth Version (Bar-On EQ-i:YV) consists of 60 items distributed across 7 scales and is suitable for ages 7 to 18 years. The instrument also includes an Inconsistency Index scale that assesses item response consistency. See Table 27 for the Bar-On EQ-i:YV scales and their items.

Measures contained in the Bar-On EQ-i:YV scales include Total EQ (made up of Interpersonal, Intrapersonal, Adaptability and Stress Management subscales), General Mood, Positive Impression and an Inconsistency Index. Levels of item endorsement include "Very seldom true of me", "Seldom true of me", "Often true of me", and "Very often true of me". The Bar-On EQ-i:YV takes 30 minutes to administer. See Table 28 for a description and interpretation of the Bar-On EQ-i:YV scales.

A small group of experts in the area of child and adolescent assessment examined the 133 items from the adult Bar-On EQ-i (Bar-On, 1997) for appropriateness of use with young people aged between 7 and 18 years. Approximately 25% of the items from the EQ-i were retained for the pilot of the youth version. Approximately 25% of the remaining items were shortened or modified to be more appropriate for younger people and a new set of items were also written by the authors. Following three separate exploratory factor analyses of the scale, the final version has 60 items and includes an Inconsistency Index as validity measure for response consistency.

The normative sample for the Bar-On EQ-i:YV consists of 9,172 young people (male and female) between the ages of 7 and 18 years. Both gender and age have an impact on the Bar-On EQ-i:YV results so age and gender are considered in the norms contained within the user manual together with reliability data (Bar-On & Parker, 2000). Four types of reliability information are considered; internal consistency reliability, mean inter-item correlations, test-retest reliability, and standard error of measurement/prediction.

Table 27. Bar-On EQ-i:YV Symptom Areas and Items.

Taken from Bar-On and Parker (2000)

Levels of endorsement include "Very seldom true of me", "Seldom true of me", "Often true of me", and "Very often true of me".

Symptom Area		Ratings of Self
1	General Mood Scale	I enjoy having fun
2	Inter-Personal Scale	I am good at understanding the way other
3	Stress Management Scale	I can stay calm when I am upset
4	General Mood Scale	I am happy
5	Inter-Personal Scale	I care what happens to other people
6	Stress Management Scale	It is hard for me to control my anger
7	Intra-Personal Scale	It is easy to tell people how I feel
8	Positive Impression Scale	I like everyone I meet
9	General Mood Scale	I feel sure of myself
10	Inter-Personal Scale	I usually know how other people are feeling
11	Stress Management Scale	I know how to keep calm
12	Adaptability Scale	I try to use different ways of answering hard
13	General Mood Scale	I think that most things I do will turn out okay

14	Inter-Personal Scale	I am able to respect others
15	Stress Management Scale	I get too upset about things
16	Adaptability Scale	It is easy for me to understand new things
17	Intra-Personal Scale	I can talk easily about my feelings
18	Positive Impression Scale	I have good thoughts about everyone
19	General Mood Scale	I hope for the best
20	Inter-Personal Scale	Having friends is important
21	Stress Management Scale	I fight with people
22	Adaptability Scale	I can understand hard questions
23	General Mood Scale	I like to smile
24	Inter-Personal Scale	I try not to hurt other people's feelings
25	Adaptability Scale	I try to stick with a problem until I solve it
26	Stress Management Scale	I have a temper
27	Positive Impression Scale	Nothing bothers me
28	Intra-Personal Scale	It is hard to talk about my deep feelings
29	General Mood Scale	I know things will be okay
30	Adaptability Scale	I can come up with good answers to hard
31	Intra-Personal Scale	I can easily describe my feelings
32	General Mood Scale	I know how to have a good time
33	Positive Impression Scale	I must tell the truth
34	Adaptability Scale	I can come up with many ways of answering a
35	Stress Management Scale	I get angry easily
36	Inter-Personal Scale	I like doing things for others
37	General Mood Scale	I am not very happy
38	Adaptability Scale	I can easily use different ways of solving
39	Stress Management Scale	It takes a lot for me to get upset
40	General Mood Scale	I feel good about myself
41	Inter-Personal Scale	I make friends easily
42	Positive Impression Scale	I think I am the best in everything I do
43	Intra-Personal Scale	It is easy for me to tell people what I feel
44	Adaptability Scale	When answering hard questions I try to think of

45	Inter-Personal Scale	I feel bad when other people have their feelings
46	Stress Management Scale	When I am mad at someone, I stay mad for a
47	General Mood Scale	I am happy with the kind of person I am
48	Adaptability Scale	I am good at solving problems
49	Stress Management Scale	It is hard for me to wait my turn
50	General Mood Scale	I enjoy the things I do
51	Inter-Personal Scale	I like my friends
52	Positive Impression Scale	I do not have bad days
53	Intra-Personal Scale	I have trouble telling others about my feelings
54	Stress Management Scale	I get upset easily
55	Inter-Personal Scale	I can tell when one of my close friends is
56	General Mood Scale	I like my body
57	Adaptability Scale	Even if things get hard, I do not give up
58	Stress Management Scale	When I get angry, I act without thinking
59	Inter-Personal Scale	I know when people are upset, even when they
60	General Mood Scale	I like the way I look

Table 28. BarOn EQ-i:YV Scales and Interpretations.

Information taken from Bar-On and Parker (2000).

Description of BarOn EQ-i:YV Scales & Interpretation	
Scale	**Characteristics of People with High Scores.**
Intrapersonal Scale	This scale has 5 items. Individuals responding highly on this scale understand their emotions. They are also able to express and communicate their feelings and needs.
Interpersonal Scale	This scale has 12 items. Individuals responding highly on this scale are likely to have satisfying interpersonal relationships. They are good listeners and are able to understand and appreciate the feelings of others.
Adaptability Scale	This scale has 10 items. Individuals responding highly on this scale are flexible, realistic, and effective in managing change. They are good at finding positive ways of dealing with everyday problems.
Stress Management Scale	This scale has 12 items. Individuals responding highly on this scale are generally calm and work well under pressure. They are rarely impulsive and can usually respond to a stressful event without an emotional outburst.
Total EQ	Individuals responding highly on this scale are generally effective in dealing with daily demands and are typically happy.

General Mood Scale	This scale has 14 items. Individuals responding highly on this scale are optimistic. They also have a positive outlook and are typically pleasant to be with.
Positive Impression Scale	This scale has 6 items. Individuals responding highly on this scale may be attempting to create an overly positive self-impression.
Inconsistency Index	There are considerable inconsistencies in the way these individuals have responded to similarly worded items. They may have misunderstood the instructions, or may have responded in a careless or random fashion.

Appendix S. RSCA Scales and Interpretation.

The RSCA is a combination of three self-report scales; Sense of Mastery (20 items), Sense of Relatedness (24 items), and Emotional Reactivity (20 items), consisting of a total of 64 items (Prince-Embury, 2007). The Sense of Mastery Scale consists of three subscales: Optimism, Self-efficacy, and Adaptability. The Sense of Relatedness Scale consists of four subscales: Trust, Perceived Social Support, Comfort, and Tolerance. The Emotional Reactivity Scale consisted of three subscales: Sensitivity, Recovery, and Impairment. Response options are frequency based, ordered on a 5-point Likert scale: 0 (never), 1 (rarely), 2 (sometimes), 3 (often), and 4 (almost always). See Table 29 for the RSCA scales and their items. The RSCA takes 15 minutes to administer.

The RSCA was designed to systematically identify and quantify core personal qualities of resiliency in youth, as expressed in their own words about their own experience (Prince-Embury, 2007). The purpose of the scales is to provide theoretically and empirically sound assessment of core characteristics of personal resiliency in children and adolescents (ages 9 to 18) that are easily communicated to them and their care providers for the purpose of education, screening, prevention and counselling (Prince-Embury, 2007). The scales are self-report which is consistent with the notion that resiliency is mediated through the appraisal or subjective experience of the individual and therefore best assessed in the same way. An advantage of the RSCA is that the items pertain to normal,

everyday functioning and are not stigmatising. For this reason, it may not be readily apparent to the child or adolescent how to "fake-good" or "fake-bad" (Prince-Embury, 2007). See Table 30 for a description of the RSCA clinical scales and their interpretation.

Reliability estimates for the three primary RSCA and their subscales are discussed in the RSCA user manual (Prince-Embury, 2007). Prince-Embury (2009) summarises the Alpha coefficients for the three global scales across age and gender groups between ages 9 and 14 as follows: Sense of Mastery Scale alpha coefficients range from .85 to .89. Sense of Relatedness alpha coefficients ranged from .89 to .91. Emotional Reactivity alpha coefficients range from .90 to .91. Test-retest reliability correlation coefficients for the three global scales ranged from .79 to .95. Concurrent and criterion group validity evidence, including differences between clinical and nonclinical groups, are provided in the technical manual (Prince-Embury, 2008).

The RSCA is a standardised assessment developed from research focusing on the identification of protective factors present in the lives of those who thrived in the face of adversity as compared to those who did not (Garmezy, Masten & Tellegen, 1984; Luthar, 1991, 2003; Masten, 2001; Rutter, Harrigon, Quinton & Pickles, 1994; Werner & Smith, 1992, 2001). Prince-Embury (2007) describes a conceptual overlap between the dimensions of personal strength assessed in the RSCA with the notion of ego resiliency captured by Block and Block (1980); a set of traits reflecting

general resourcefulness and sturdiness of character, and flexibility in response to varying environmental circumstances. The RSCA is a self-report measure of resilience intended for youth aged 9 to 18 years.

Table 29. RSCA Scales and Items.

Taken from Prince-Embury (2007).

Levels of endorsement include "Rarely", "Sometimes", "Often", and "Almost Always".

Symptom Area		Subscale	Items
1	Mastery	Optimism	Life is fair
2	Mastery	Optimism	I can make good things happen
3	Mastery	Optimism	I can get the things I need
4	Mastery	Optimism	I can control what happens to me
5	Mastery	Self-Efficacy	I do things well
6	Mastery	Self-Efficacy	I am good at fixing things
7	Mastery	Self-Efficacy	I am good at figuring things out
8	Mastery	Self-Efficacy	I make good decisions
9	Mastery	Self-Efficacy	I can adjust when plans change
10	Mastery	Self-Efficacy	I can get past problems in my own way
11	Mastery	Self-Efficacy	If I have a problem I can solve it
12	Mastery	Self-Efficacy	If I try hard it makes a difference
13	Mastery	Self-Efficacy	If at first I don't succeed, I will keep on trying
14	Mastery	Self-Efficacy	I can think of more than one way to solve a problem
15	Mastery	Adaptability[1]	I can learn from my mistakes
16	Mastery	Adaptability[1]	I can ask for help when I need to
17	Mastery	Adaptability[1]	I can let others help me when I need to
18	Mastery	Optimism	Good things will happen to me
19	Mastery	Optimism	My life will be happy
20	Mastery	Optimism	No matter what happens, things will be alright
21	Relatedness	Comfort	I can meet new people easily
22	Relatedness	Comfort	I can make friends easily
23	Relatedness	Comfort	People like me
24	Relatedness	Comfort	I feel calm with people
25	Relatedness	Support	I have a good friend
26	Relatedness	Trust	I like people
27	Relatedness	Support	I spend time with my friends
28	Relatedness	Support	Other people treat me well
29	Relatedness	Support	I can trust others
30	Relatedness	Support	I can let others see my real feelings

31	Relatedness	Tolerance[2]	I can calmly tell others that I don't agree with them
32	Relatedness	Tolerance[2]	I can make up with friends after a fight
33	Relatedness	Tolerance[2]	I can forgive my parent(s) if they upset me
34	Relatedness	Tolerance[2]	If people let me down, I can forgive them
35	Relatedness	Tolerance[2]	I can depend on people to treat me fairly
36	Relatedness	Tolerance[2]	I can depend on those closest to me to do the right thing
37	Relatedness	Tolerance[2]	I can calmly tell a friend if he or she does something that hurts
38	Relatedness	Support	If something bad happens I can ask my friends for help
39	Relatedness	Support	If something bad happens I can ask my parent(s) for help
40	Relatedness	Support	There are people who will help me if something bad happens
41	Relatedness	Support	If I get upset or angry, there is someone I can talk to
42	Relatedness	Support	There are people who love and care about me
43	Relatedness	Support	People know who I really am
44	Relatedness	Support	People accept me for who I really am
45	Reactivity	Sensitivity	It is easy for me to get upset
46	Reactivity	Sensitivity	People say that I am easy to upset
47	Reactivity	Sensitivity	I strike back when someone upsets me
48	Reactivity	Sensitivity	I get very upset when things don't go my way
49	Reactivity	Sensitivity	I get very upset when people don't like me
50	Reactivity	Sensitivity	I can get so upset that I can't stand how I feel
51	Reactivity	Impairment	I get so upset that I lose control
52	Reactivity	Impairment	When I get upset I don't think clearly
53	Reactivity	Impairment	When I get upset, I react without thinking
54	Reactivity	Recovery	When I get upset, I stay upset for about one hour
55	Reactivity	Recovery	When I get upset, I stay upset for several hours
56	Reactivity	Recovery	When I get upset, I stay upset for the whole day
57	Reactivity	Recovery	When I get upset, I stay upset for several days
58	Reactivity	Impairment	When I am upset, I make mistakes
59	Reactivity	Impairment	When I am upset, I do the wrong thing
60	Reactivity	Impairment	When I am upset, I get into trouble
61	Reactivity	Impairment	When I am upset, I do things that I later feel bad about
62	Reactivity	Impairment	When I am upset, I hurt myself
63	Reactivity	Impairment	When I am upset, I hurt someone
64	Reactivity	Impairment	When I am upset, I get mixed up

Table 30. Description and Interpretation of RSCA Items.

Information taken and adapted from Prince-Embury (2007).

Description of RSCA Clinical Scales & Interpretation	
Scale	**Item Content**
Clinical Scales	
Sense of Mastery	The design of the sense of Mastery scale distinguishes 3 personal characteristics that combine to form the underpinnings of the youth's sense of mastery – OPTIMISM, SELF-EFFICACY and ADAPTABILITY. OPTIMISM has been defined as a positive attitude(s) about the world/life in general and about an individual's life specifically, currently, and in the future. SELF-EFFICACY can be viewed as one's approach to obstacles or problems, a sense of competence. *The higher the efficacy, the greater the resilience that will be demonstrated. ADAPTABILITY is the ability to be personally receptive to criticism, and to learn from one's mistakes.

Sense of Relatedness	The design of the sense of relatedness scale includes 4 aspects – SENSE OF TRUST, PERCEIVED ACCESS TO SUPPORT, COMFORT WITH OTHERS and TOLERANCE. SENSE OF TRUST is defined as the degree to which others are perceived as reliable and accepting, and the degree to which an individual can be authentic in these relationships. *The significance of trust was identified by Erikson (1963) as the first stage of social emotional development, upon which all other social development is built. It is hypothesised that this dimension relates to the underlying attachment status. PERCEIVED ACCESS TO SUPPORT is defined as the individual's belief that there are others to whom he or she can turn to when dealing with adversity. This subscale is intended to measure the youth's perceived access to support rather than actual support. COMFORT WITH OTHERS is defined as the degree to which an individual can be in the presence of others without discomfort or anxiety. TOLERANCE is defined as the individual's belief that he or she can safely express differences within a relationship.
Emotional Reactivity	The design of the emotional reactivity scale includes 3 aspects – SENSITIVITY, RECOVERY and IMPAIRMENT. The scale does not assess emotional regulation directly, but rather the extent to which the youth experiences himself or herself maintaining an even keel when emotionally aroused. SENSITIVITY is the threshold for reaction and the intensity of the reaction. 6 items ask the youth to assess "how easy it is for

	(him/her) to get upset" and how upset he or she gets. The word upset was chosen intentionally to indicate a state of arousal or disequilibrium without specifying the emotion. RECOVERY is the ability to bounce back from emotional arousal or disturbance of emotional equilibrium. i.e. "When I get upset, I stay upset for several hours…". IMPAIRMENT is the degree to which the youth is able to maintain an emotional equilibrium when aroused. Examples of impairment are losing control, making mistakes, not thinking clearly and getting into trouble.
Resource Index	The resource index takes into consideration both the individuals 'sense of mastery' and 'sense of relatedness'. For screening purposes, combining the assessment of these qualities is a practical and convenient way of summarising the positive strengths available to the young person.
Vulnerability Index	Within the vulnerability index, personal vulnerability is quantified and estimated by a discrepancy between the youth's emotional reactivity scale score and his or her resource index.

Appendix T. Pearson's Correlation Matrix for Research Question 1.

Correlations

		Physical Aggression (AQ)	Anxiety (TSCC)	Depression (TSCC)	Anger (TSCC)	Post Traumatic Stress (TSCC)	Dissociation (TSCC)	Sexual Concerns (TSCC)
Pearson Correlation	Physical Aggression (AQ)	1.000	.222	.266	.585	.257	.273	.218
	Anxiety (TSCC)	.222	1.000	.785	.558	.797	.730	.565
	Depression (TSCC)	.266	.785	1.000	.574	.758	.672	.482
	Anger (TSCC)	.585	.558	.574	1.000	.577	.669	.558
	Post Traumatic Stress (TSCC)	.257	.797	.758	.577	1.000	.723	.598
	Dissociation (TSCC)	.273	.730	.672	.669	.723	1.000	.634
	Sexual Concerns (TSCC)	.218	.565	.482	.558	.598	.634	1.000
Sig. (1-tailed)	Physical Aggression (AQ)	.	.003	.000	.000	.001	.000	.003
	Anxiety (TSCC)	.003	.	.000	.000	.000	.000	.000
	Depression (TSCC)	.000	.000	.	.000	.000	.000	.000
	Anger (TSCC)	.000	.000	.000	.	.000	.000	.000
	Post Traumatic Stress (TSCC)	.001	.000	.000	.000	.	.000	.000
	Dissociation (TSCC)	.000	.000	.000	.000	.000	.	.000
	Sexual Concerns (TSCC)	.003	.000	.000	.000	.000	.000	.
N	Physical Aggression (AQ)	153	153	153	153	153	153	153
	Anxiety (TSCC)	153	153	153	153	153	153	153
	Depression (TSCC)	153	153	153	153	153	153	153
	Anger (TSCC)	153	153	153	153	153	153	153
	Post Traumatic Stress (TSCC)	153	153	153	153	153	153	153
	Dissociation (TSCC)	153	153	153	153	153	153	153
	Sexual Concerns (TSCC)	153	153	153	153	153	153	153

Appendix U. Letter of Permission for use of Archival Data from Psychological Consultancy Services.

PSYCHOLOGICAL CONSULTANCY SERVICES

Bob Donnelly,
1 Little Herdhill Way,
Kirriemuir,
Angus DD8 5JZ
07751596689

Chartered Educational Psychologist
Chartered Forensic Psychologist
bob.donnelly@blueyonder.co.uk

4th February 2014

Dr Clodagh Dugdale
Faculty of Medicine and Health Sciences
Research Ethics Committee
Division of Respiratory Medicine
D Floor, South Block
Queen's Medical Centre
Nottingham
NG7 2UH

Dear **Dr Dugdale**

Ethics Reference No: H16012014 SoM PAPsych Foren
Study Title: The relationship between trauma and aggression and the role of protective factors in moderating this relationship.
Chief Investigator/Supervisors: Dr Kate Whitfield, Dr Simon Duff, Lecturers, Division of Psychiatry and Applied Psychology, School of Medicine, Bob Donnelly, Moore House Care & Education Team.
Lead Investigators/Student: Stephen Drysdale Top-Up Doctorate in Forensic Psychology (part-Time) Student/Psychologist Moore House Care and Education.
Duration of Study: 02.2014-05.2014 5mths **No of Subjects** 70-210 Datasets

With reference to your letter dated 20th January 2014, please accept this letter as authorisation for Stephen Drysdale to utilise the archival data I have collected for the purposes of this research project.

Please contact me should you require any further information.

Yours sincerely

R.C. Donnelly

Bob Donnelly
Consultant Chartered Forensic and Educational Psychologist

Appendix V. Letter of Ethics Committee Approval from University of Nottingham.

The University of Nottingham

Direct line/e-mail
+44 (0) 115 8232561
Louise.Sabir@nottingham.ac.uk

5th February 2014

Faculty of Medicine and Health Sciences

Research Ethics Committee
Division of Respiratory Medicine
D Floor, South Block
Queen's Medical Centre
Nottingham
NG7 2UH

Stephen Drysdale
Top-up Doctorate in Forensic Psychology
c/o Dr Kate Whitfield
Lecturer in Forensic Psychology
Division of Psychiatry and Applied Psychology
Centre for Forensic and Family Psychology
The University of Nottingham
Room 6, Floor B, Yang Fujia Building, Jubilee Campus
Nottingham NG8 1BB

Dear Stephen

Ethics Reference No: H16012014 SoM PAPsych Foren
Study Title: The relationship between trauma and aggression and the role of protective factors in moderating this relationship.
Chief Investigator/Supervisors: Dr Kate Whitfield, Dr Simon Duff, Lecturers, Division of Psychiatry and Applied Psychology, School of Medicine, Dr Bob Donnelly, Moore House Care & Education Team.
Lead Investigators/Student: Stephen Drysdale Top-Up Doctorate in Forensic Psychology (part-Time) Student/Psychologist Moore House Care and Education.
Duration of Study: 02.2014-05.2014 5mths **No of Subjects** 70-210 datasets

Thank you for your letter dated 5th February 2014 submitting a copy of the letter granting you authorisation by the Psychological Consultancy Services (PCS) to utilise the archival data collected for the purposes of this research project for our record as requested.

- Letter of authorisation from Bob Donnelly, Consultant Chartered Forensic and Education Psychologist, Psychological Consultancy Services, dated 4th February 2014.

This has been received and acknowledged and the study is approved.

Approval is given on the understanding that the Conditions of Approval set out below are followed.

1. You must follow the protocol agreed and inform the Committee of any changes using a notification of amendment form (please request a form).
2. You must notify the Chair of any serious or unexpected event.
3. This study is approved for the period of active recruitment requested. The Committee also provides a further 5 year approval for any necessary work to be performed on the study which may arise in the process of publication and peer review.

4. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

CDugdale

Dr Clodagh Dugdale
Chair, UoN Faculty of Medicine & Health Sciences Research Ethics Committee