



INTENSIVE TRAUMA-FOCUSED TREATMENT FOR ADOLESCENTS WITH PTSD: FEASIBILITY AND PRELIMINARY EFFECTS

Study Protocol

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Principal investigator: Maria Helander, maria.helander@ki.se,
Centre for Psychiatry Research, Department of Clinical
Neuroscience, Karolinska Institutet, & Stockholm Health Care
Services, Region Stockholm, Sweden

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Post-Traumatic Stress Disorder (PTSD) is associated with a high risk of chronicity if untreated (Pietrzak et al., 2012). Rapid and effective interventions are crucial for reducing symptom burden and preventing long-term complications. According to treatment guidelines (NICE, 2018), the two primary recommended treatments for PTSD in children and adolescents are Trauma-Focused Cognitive Behavioral Therapy (TF-CBT; Cohen et al., 2018) and Eye Movement Desensitization and Reprocessing (EMDR; Shapiro, 2007), both of which are supported by substantial empirical evidence (e.g., Bastien et al., 2020). These treatments typically involve 6–9 months of weekly sessions.

A notable challenge in treating adolescents with PTSD is the high rate of premature treatment termination (Simmons et al., 2021). Increasing treatment intensity may reduce dropout rates, as studies indicate that more frequent sessions lead to greater symptom reduction and improved retention (Wachen et al., 2019). In adult populations, intensive programs that combine evidence-based therapies such as EMDR and Prolonged Exposure (PE), alongside physical activity and psychoeducation, have shown promising results, including significant symptom reduction and lower dropout rates (e.g., Tingshög et al., 2024; Van Minnen et al., 2020).

While EMDR and exposure-based therapies share some similarities, they operate through different mechanisms. TF-CBT utilizes continuous exposure to facilitate habituation and fear extinction, whereas EMDR employs dual attention stimulation, often via eye movements. The hypothesis that combining both approaches can enhance treatment effects through complementary mechanisms (Van Minnen et al., 2020) requires further investigation, particularly in an intensive format.

For adolescents, treatment protocols similar to those developed for adults have emerged, evaluating variations of 5-8 days of intensive treatment that combines therapeutic modalities such as EMDR and CBT-based treatments like PE or TF-CBT, along with parental support and physical activity. In the Netherlands, a Brief Intensive Trauma Treatment (KIT; Korte Intensieve Traumabehandeling) model has been developed, which combines EMDR with TF-CBT, physical exercise, and parental support (Albisser et al., 2024).

Despite promising outcomes indicating rapid symptom alleviation—often within a week—existing research on intensive trauma treatments for children and adolescents is limited. Notably, no randomized controlled trials (RCTs) have been published, and many studies lack control groups (van Pelt et al., 2021). Observed results suggest that most participants no longer met PTSD diagnostic criteria post-treatment while reporting reduced depressive symptoms. However, methodological limitations call for cautious interpretation of these findings (Albisser et al., 2024; Rentinck et al., 2025).

This project is designed as a feasibility study utilizing a within-group design to assess the viability and preliminary effects of a Swedish adaptation of the KIT model in preparation for a larger RCT. This intensive five-day trauma-focused intervention will incorporate EMDR and TF-CBT elements alongside physical activity and parent sessions, targeting adolescents

with PTSD referred to the Child and Adolescent Psychiatry (CAP) Trauma Unit in Stockholm. Ethical approval for the study has been granted (Dnr 2024-05726-02).

Research Questions

1. Is the intensive KIT-S intervention a feasible and appropriate treatment approach for PTSD in Swedish child and adolescent psychiatry, in terms of clinician experience, patient retention, patient satisfaction, and occurrence of adverse effects?
2. Does KIT-S lead to expected reductions in PTSD symptoms and general psychological distress?

Hypotheses

1. We hypothesize that intensive trauma-focused psychological treatment with EMDR, components of TF-CBT, combined with physical activity and a parent group, will be perceived as a feasible, suitable, and acceptable treatment method for PTSD within Swedish child and adolescent psychiatry in terms of:
 - a. Clinicians' ratings of whether they find the intensive trauma-focused treatment acceptable, appropriate, and feasible.
 - b. The number of patients who complete the treatment without dropping out
 - c. Patients' self-reported satisfaction with the treatment
 - d. The proportion of patients with "adverse effects"
2. We hypothesize that preliminary results of intensive trauma-focused treatment with EMDR, components of TF-CBT, combined with physical activity and a parent group for PTSD, will lead to a decrease in symptoms in the expected direction in terms of
 - a. PTSD symptoms
 - b. General mental health

Method

Participants

The study is embedded in routine clinical practice. Both clinicians, patients, and caregivers participate in the project after informed consent. The clinical team consists of seven psychologists and four social workers with therapist training and extensive experience.

20 patients with PTSD between 13 and 17 years of age who are referred to the specialized trauma unit within Stockholm Child and Adolescent Psychiatry will be included in the study. Inclusion criteria are a PTSD diagnosis, no or stable medication involving antidepressants, stimulants, and/or antipsychotics, and at least one caregiver who can participate in the treatment. Exclusion criteria are high risk for suicide, IQ below 75, and current substance abuse.

Procedure

Patients who meet the inclusion criteria after assessment at the BUP Trauma Unit are informed about the study. If interested, they attend a meeting to receive further verbal and

written information and provide consent. Inclusion is decided during treatment planning meetings. Background data is collected, and a diagnostic interview is scheduled. Upon inclusion, an additional session was scheduled with the patient and their caregiver to identify target memories, avoidance behaviors, and trauma-related triggers in preparation for intensive

Patients who declined participation in the study were offered standard trauma treatment at the clinic, consistent with the evidence-based care provided to all referred patients. Their access to other services within the Trauma Unit remained unaffected.

Each semester, one to three intensive weeks are held for groups of three patients. Patients not interested in the study are offered standard trauma treatment.

Data is collected using paper-based self-report measures completed by the patient, caregiver, and clinician. All rating forms are stored at the CAP Trauma Unit separately from medical records in a locked archive. The results of the structured diagnostic interview are recorded in the electronic patient journal system, Take Care.

The clinicians who participate as therapists in the study will give their view on how appropriate, acceptable, and feasible the treatment is perceived after completing an intensive treatment week, and after all 20 patients have been treated.

Intervention

The intensive treatment incorporates core components from Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) for children and adolescents (Cohen, Mannarino, & Deblinger, 2008) as well as the standard EMDR protocol (Shapiro, 2018). The treatment consists of daily sessions over five days and includes five 120-minute TF-CBT sessions, four 120-minute EMDR sessions, and a concluding joint session with a caregiver during which the patient shares their trauma narrative (see Table 1). Following the intensive treatment week, three individual follow-up sessions are conducted at one-, two-, and four weeks post-treatment.

In parallel with the adolescent's trauma therapy, a caregiver group is offered for parents, foster carers, or residential staff. On days one and two, caregivers participate in group sessions focused on psychoeducation. The caregiver component is followed by two individual caregiver sessions.

Table 1.

Intensive Trauma Treatment Schedule

TIME	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10.00–12.00	TF-CBT	TF-CBT Caregiver group in parallel	TF-CBT	TF-CBT Caregiver group in parallel	TF-CBT + Narrative Preparation
12.00–13.00	LUNCH	LUNCH	LUNCH	LUNCH	
13.00–15.00	EMDR	EMDR	TF-CBT	EMDR	Individual patient and caregiver Session
15.15–16.00	Physical Training	Physical Training	Physical Training	Physical Training	

Outcome measures

Measures of acceptability, appropriateness, and feasibility (Weiner et al., 2017).

Acceptability of Intervention Measure (AIM), Intervention Appropriateness Measure (IAM), and Feasibility of Intervention Measure are three rating forms that are considered leading in **measuring** successful implementation (Proctor et al., 2011). Acceptability is defined in terms of how well an intervention/intervention/product is perceived as acceptable or satisfactory by different stakeholders. Appropriateness refers to how well an intervention fits or is considered appropriate in a context. Feasibility refers to the degree to which a new treatment can be used successfully within a given context (Proctor et al., 2011). AIM, IAM, and FIM consist of four questions each and have good psychometric properties (Cho et al., 2022; Weiner et al., 2017). The rating instruments are rated on a 5-point scale from "do not agree at all" to "strongly agree". Example questions: AIM: CPP lives up to my expectations, IAM: CPP seems appropriate and FIM: CPP seems feasible to implement.

Clinician-Administered PTSD Scale for DSM-5 - Child/Adolescent Version (CAPS-CA-5; Nader et al., 1996). The CAPS-CA-5 is a structured diagnostic interview assessing PTSD diagnosis (Nader et al., 1996; Pynoos et al., 2015). It contains 30 items and assesses symptom severity by combining frequency and intensity ratings on a 0–4 scale, minimum value = 0, maximum value = 120 CAPS-CA-5 total symptom severity score is calculated by summing severity scores for the 20 DSM-5 PTSD symptoms. Similarly, CAPS-CA-5 symptom cluster severity scores are calculated by summing the individual item severity scores for symptoms corresponding to a given DSM-5 cluster: Criterion B (items 1-5); Criterion C (items 6-7); Criterion D (items 8-14); and, Criterion E (items 15-20). PTSD diagnostic status is determined by first dichotomizing each symptom as "present" or "absent," then following the DSM-5 diagnostic rule. A symptom is considered present only if the corresponding item severity score is rated 2 ("moderate/threshold") or higher.

Child and adolescent trauma screen 2 (CATS-2-F; Sacher et al., 2022). Trauma symptoms are assessed using the CATS-2, both for the adolescent (CATS-2-U) and for the caregiver (CATS-2-F). This trauma questionnaire screens for both trauma history and trauma symptoms based on DSM-5 criteria. The CATS-2 consists of two parts. Part one is a screening for potentially traumatic events at any point in the individual's life, comprising 15 items where the patient can answer YES or NO. Part two is a screening for post-traumatic symptoms over the past four weeks, with 20 items and five questions about how the child's daily life has been impacted by these symptoms. The total score for CATS-2-U may vary between 0 and 60 points. Each item is rated on a four-point Likert scale between 0 (never) to 3 (almost always), and the total score is calculated by summing the answers from each item. A higher score indicates a worse outcome.

The Children Impact of Event Scale (CRIES-13; Dyregrov et al., 1996). CRIES-13 is a 13-item scale assessing PTSD symptoms using a four-point Likert scale (Not at all, Rarely, Sometimes, Often), scored 0,1,3,5 with no reversed items. It includes subscales for intrusion (four items), avoidance (four items), and arousal (five items). The total score thus ranges from 0 to 65 on this 13-item scale. A higher score indicates a worse outcome in terms of PTSD symptom burden. CATS-2 (Sacher et al., 2022) is used for both youth and caregivers to screen

for trauma history and symptoms. It contains two parts: 15 yes/no items for trauma exposure and 20 items for PTSD symptoms rated on a 0–3 Likert scale.

The Strengths and Difficulties Questionnaire (SDQ; Goodman, 2001). The SDQ is a 25-item scale assessing general psychological functioning. A total difficulties score is generated by summing scores from all the scales except the prosocial scale, with a minimum value of 0 to a maximum value of 40. Each subscale consists of 5 items each (range 0–2 from "not true", to "certainly true". A higher score indicates a worse outcome.

Client Satisfactory Questionnaire-8 (CSQ-8; Attkisson & Zwick, 1982). The Client Satisfaction Questionnaire-8 is an 8-item self-report scale measuring satisfaction with treatment. Items are scored on a Likert scale from 1 (low satisfaction) to 4 (high satisfaction) with different descriptors for each response point. Total scores range from 8 to 32, with higher scores indicating greater satisfaction.

Adverse events. Clinicians complete a brief checklist with the patient and caregiver each morning during the intensive week and at follow-up sessions. Questions include whether the patient has self-harmed, had increased suicidal thoughts, or sought emergency psychiatric care since the last session.

Table 2.

Overview over outcome measures and time points for assessment.

Measure Category	Instrument	Items	Respondent(s)	Format	Baseline assessment	Days 1–5	Week 1	Week 2	Week 4	Week 5
Timeline					Pre treatment	Treatment	Post treatment			
Background	Background Info	12	Clinician	Form	✓					
PTSD Diagnosis	CAPS-CA-5	-	Youth	Interview	✓					✓
PTSD Symptoms	CRIES-13	13	Youth	Scale	✓	✓	✓	✓		✓
PTSD Symptoms	CATS-2-U/F	-	Youth/Caregiver	Scale	✓		✓	✓		✓
Mental Health	SDQ (total)	25	Youth/Caregiver	Scale	✓					✓
Treatment Satisfaction	CSQ-8	8	Youth	Scale						✓
Implementation	AIM/IAM/FIM	16	Clinician	Scale						✓
Adverse Effects	Checklist	3	Clinician	Checklist	✓	✓	✓	✓		✓

Note. CAPS-CA-5 = Clinician-Administered PTSD Scale for DSM-5 - Child/Adolescent Version; CRIES-13 =The Children's Revised Impact of Event Scale; CATS-2-U/CATS-2-F= Child and Adolescent Trauma Screen 2; SDQ=The Strengths and Difficulties Questionnaire; CSQ-8= Client Satisfaction Questionnaire; AIM= Acceptability of Intervention Measure; IAM= Intervention Appropriateness Measure; FIM= Feasibility of Intervention Measure.

Time points for data assessment

Data is collected at baseline and at five weeks post treatment week for all measures. In addition, two of the measures are collected with higher intensity, the CRIES 13, self rated measure of PTSD symptoms is collected daily during the treatment week and at one and two

weeks post treatment. The CATS 2 is assessed at one and two weeks post treatment by both the patient and the caregiver. See Table 2 for assessment overview.

Data analysis

To consider the intervention acceptable, appropriate, and feasible, at least 80% of clinicians must rate the method above 50 on a 0–100 scale on the AIM, IAM, and FIM subscales. Attrition rates will be compared to dropout rates reported in earlier studies.

As a pilot study with a limited sample size, inferential statistics are not planned. Instead, changes in PTSD symptoms and mental health will be examined descriptively. Planned analyses include within-group effect sizes and proportions of patients in full or partial remission.

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