Development of PTSD Symptoms of Unaccompanied Refugee Minors using a Culturally Adaptive Intervention

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Preface

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Abstract

Objective: Veerkracht II is a specially developed mental healthcare intervention designed to help unaccompanied refugee minors (URM) with traumatic experiences. This study aims to evaluate the potential effectiveness of a short-term treatment approach consisting of multiple trauma focused interventions. The main focus lies in the effectiveness on PTSD symptoms. The second aim of this study was to list factors that could explain the dropout rate among minors, as previous literature reported URMs experiencing major difficulties with mental healthcare.

Method: The change in PTSD symptoms was analyzed using the pre and post-test scores of the CRIES-13. Since the research population was small, the Reliable Change Index (RCI) was used to test clinical and statistical significance for each individual. Potential dropout factors were obtained by reading the case reports, mainly focusing on the description of the main theme of the session and the general notes written at the end of each session.

Results: The research population consisted of 44 participants (n=44). 15 participants had filled in the pre-test and posttest of the CRIES-13 and could therefore be included in the RCI (n=15). Nine respondents reported clinically significant improvement after the intervention (n=9). Two respondents reported statistical significant improvement (n=2). Four participants scored lower on the post-test, but the change in score was not significant (n=4). Nine respondents dropped out of therapy after 1-4 sessions (n=9). Lack of motivation and distrust towards others were the most recurring factors for dropping out of the intervention (n=6). Numerous URMs reported major difficulties with parts of the therapy, mainly EMDR (n=12). Two patients decided to stop with therapy as a result of EMDR (n=2) and four patients requested a different form of therapy (n=4).

Conclusion: Veerkracht II has shown beneficial results and provides a good introduction into mental healthcare. All respondents attending at least two sessions reported to experience benefits from the intervention. Although reliable pre-and post-tests were limited, the general results were positive. The group of URMs that dropped out was small, potentially indicating that the intervention met the specific needs of this group. Although the outcome seems promising, there are reliability issues, due to a huge lack of data and inconsistent reporting by therapists.

1. Introduction

"*At the age of 10 my brother and father were arrested and imprisoned in jail. I had to live in a camp until I decided to flee to another country at the age of 16. We traveled through the Sahara, I have seen many people around me die from starvation and thirst. After the journey in the Sahara, we arrived at the coast where I was imprisoned and physically abused for three months. After that, I was able to cross the sea to Italy"*- **Unaccompanied refugee minor**

This is one of many stories of what unaccompanied refugee minors (URMs) had experienced before they arrived in Europe. URMs are refugees under the age of 18 who have been separated from their caregivers and arrive alone at their destination (UNHCR, 1994).

The UN has reported gross violation of human rights in countries such as Eritrea, with military conscription and torture in prison. These inhuman violation in Eritrea and dangerous living conditions in countries such as Syria and Afghanistan are reasons for people to flee their country. During the last years, increasing numbers of refugee minors have been seeking asylum in Europe (Kien et al., 2019). Last year 22.533 refugees requested asylum in the Netherlands, of which 1.045 were unaccompanied refugee minors, who mainly came from Eritrea (Kleber, 2017; VWN, 2020).

As the amount of scientific and clinical literature increased, it became evident what young refugees and especially URMs had been confronted with in their country of origin and during the migration (Unterhitzenberger et al., 2015). URMs were confronted with agonizing experiences and faced challenges in all stages of their journey (Fazel, Reed, Panter-Brick & Stein, 2012; Sleijpen, Boeije, Kleber & Mooren, 2015). These challenges were often related to violence, abuse or death (Bean, Derluyn, Eurelings-Bontekoe, Broekaert & Spinhoven, 2007). Minors traveling through the Sahara have seen people die of dehydration (Bean et al., 2007). Others were not trafficked to the intended destination but brought somewhere else where they were physically or sexually abused (van Es et al., 2019). Before being able to cross the sea, large groups of refugees have been deprived of their freedom for months awaiting the possibility to travel to Europe.

Problems did not disappear when URMs arrived in safe countries. There are challenges that are unique to people with a refugee background. Post migration stressors such as communication difficulties, discrimination and uncertainty about residence status have a major impact on the mental health of young refugees (Sleijpen, Boeije, Mooren & Kleber, 2016). The social, cultural and linguistic anomalies contribute to experiencing a constant level

of stress (van Es, Sleijpen, Ghebreab, & Mooren, 2019; Sleijpen, Boeije, Mooren & Kleber, 2017). Social-cultural problems have been reported to be most challenging for unaccompanied refugee minors (Bean et al., 2007).

Psychological help is important as unaccompanied refugee minors are an even higher-risk group for developing mental problems, compared to accompanied young refugees (Bean et al., 2007; Eriksson & Rundgren, 2018). Studies have shown that URMs had experienced more traumatic events, such as sexual assault and violence, compared to accompanied minors (van Es et al., 2017). The high vulnerability of URMs could further be explained by the separation of a caregiver, and therefore lack of a supportive parental role. URMs consistently had higher scores on tests that measure the influence of traumatic events, traumatic stress and internalizing problems compared to other groups (Bean, 2007). The meta-analysis of Kien et al. (2019) showed the following prevalence of psychiatric disorders and mental health problems:

- An estimated 19.0% to 52.7% of URMs developed PTSD,
- between 10.3% and 32.8% developed a depression,
- lastly between 8.7% and 31.6% developed an anxiety disorder.

These percentages are very high compared to the general population (Kien et al., 2019).

Due to these complex problems, successful interventions with distressed refugee children require more then only psychotherapeutic skills. Ideally the intervention consists of a combination of psychosocial interventions, adequate housing solutions and psychotherapeutic interventions (Fazel et al., 2012). Despite the traumatic events, young people can often develop successful strategies to handle their problems (Eriksson & Rundgren, 2018). Studies have shown that young refugees apply more resilience strategies after experiencing traumatic events, compared to adults (Sleijpen, 2015).

The Veerkracht Program

Working with URMs in need of therapy is often perceived as difficult (Sleijpen et al., 2018). There is a general tendency of URMs to distrust others (van Es et al., 2019). This could be explained by the early separation of parents and children (Bean et al., 2007; Luthar & Goldstein, 2004). URMs were not able to rely on old networks during extremely distressing events (van Es, Sleijpen, Ghebreab & Mooren, 2019). Furthermore, a study by Sleijpen and colleagues (2018) showed that mental healthcare is sometimes a taboo under URMs or even a completely unknown concept. URMs unfamiliar with mental healthcare do not always understand that treating mental health problems also consists of discussing experiences.

Healthcare professionals also tend to only focus on the traumatic events and forget to include other hurdles such as acculturation problems (van Es et al., 2019). Youth protectors have indicated that there is a great demand for mental healthcare that meets the specific needs of these minors (Sleijpen et al., 2018).

At ARQ Centre ’45 in Diemen an effort is made to provide qualitative and accessible care for these minors (Veerkracht, 2018). The program of Veerkracht is specially designed for URMs. The name -Veerkracht (meaning resilience)- comes from the surprising resilience researchers had found in earlier studies (Sleijpen et al., 2018). Minors still held positive future prospects and shared strategies with each other to cope with daily stressors. The program is not an intensive form of treatment to solve all mental health problems, but aims to remove mental healthcare barriers.

An unique aspect of the intervention is the set-up where besides the therapist, a cultural mediator (CM) is present during the sessions. The CM is a translator, but most importantly, functions as cultural bridge between patient and therapist. The therapist can hereby better understand the cultural influences of a patient’s behavior, while the patient understands why the therapist asks certain questions that are uncommon to ask in the culture of the patient (Veerkracht, 2018). To lower the bar towards mental healthcare even further, the therapist visits the patient, instead of patients visiting a clinic. Currently Veerkracht II is being implemented with the aim of perfecting the trauma focused interventions and professionalize the role of the cultural mediators.

1.1 Aims

Not enough is known about the impact of a trauma informed approach for URMs (van Es et al., 2018). Research studying the effectiveness of such a treatment have hardly been done for this specific group (Demazure, Gaultier & Pinsault, 2017). This research aims to provide a better understanding of the treatment impact on the PTSD symptoms of unaccompanied refugee minors. Knowledge about treatment effectiveness, risks factors and protective factors of mental health problems among URMs will give directions to effective interventions (Oppedal, Ramberg & Røysamb, 2020). There are two concrete aims to this study:

Change in PTSD symptoms

The primary research question states: *What is the change in the course of PTSD symptoms during the intervention?*

A study by Simons and Kursawe (2019) showed that the effects of PTSD treatment for children is often rather quickly noticeable, with an average of seven sessions needed to reduce PTSD symptoms. For this reason it was expected that the relative short treatment period of Veerkracht II would still lead to improvements. All sessions implemented effective or promising trauma focused interventions, further increasing the expectation of a positive change in PTSD symptoms (APA, 2013; Diehle, Opmeer, Boer, Mannarino & Lindauer, 2014; Neuner et al., 2008; NICE, 2020).

Dropout rate

The secondary research question states: *What are factors that could explain the dropout of patients?*

Since general mental healthcare is less effective with URMs, a substantial group tend to eventually drop out of mental healthcare (Sleijpen et al., 2018). By reviewing the case reports, we aimed to list explanations as to why URMs drop out of the intervention or stop therapy entirely. The intervention is designed in such a way that it fits the complaints and needs of the group (Mooren & van Loon, 2019). Therefore, it was expected that a most minors would complete the intervention.

2. Method

2.1 Participants

Participants were URMs referred for treatment at ARQ Centrum ’45 in Diemen. The center is specialized in the diagnosis and treatment of complex disturbances related to psychological trauma (Knipscheer, Sleijpen, Mooren, ter Heide & van der Aa, 2015). Veerkracht was available for minor refugees who are under the protection of the national guardship institution for unaccompanied and separated refugee children, better known as NIDOS (NIDOS, 2020). The refugees may come from Eritrea, Syria or Afghanistan.

Minors were referenced to the intervention by their guardians or a general practitioner. Guardians were made aware of the intervention by healthcare professionals working at NIDOS. Minors who are expected to profit from the intervention were assigned to the intervention (see appendix A).

Therapists

The intervention was performed by therapists working at various mental health care institutions throughout the Netherlands. All therapists were licensed mental healthcare workers with prior experience working with refugee minors and were trained EMDR-therapists (van Es et al., 2019).

Cultural mediators

Cultural mediators (CM) facilitate the communication process and help therapists better understand the complaints and cultural background of minors (Veerkracht, 2018). The CMs have an important role in building trust. As CMs also had first-hand experience with the problems these minors faced, they were approachable and able to estimate the limit of what minors could handle during sessions. With their knowledge about the norms and values of the minor's country of origin, the CM helped to bring a general level of understanding between therapists and minors.

Form of consent

All participants agreed that the information they provided could be used for research via a form of consent. The consent form was signed by the guardian as well, as the children were under the age of 18. A total of 44 URMs agreed to share their information for research (table 1). All minors were indicated for the intervention between September 2018 and December 2020.

2.2 Procedure

The Veerkracht protocol estimates eight sessions are needed to complete all the steps in the intervention (Mooren & van Loon, 2019). All sessions implement effective or promising trauma focused interventions (Diehle et al., 2014; Neuner et al., 2008; NICE, 2020). The intervention can be completed within seven sessions, but based on results from Veerkracht I an extra session is added if one of the interventions required extra time.

-During the first session the therapist and CM visit the patient at home or a location preferred by the patient. The guardian is often present as well. This session is a general introduction of mental healthcare and acquaintance with therapy. The aim is also to formulate a main problem that will be treated in the following sessions. At the end of the session an assessment of the conversation is made and all attending parties sign a form of consent.

-In the second session several questionnaires are used, including the CRIES-13. The questionnaires help to determine the severity of complaints, including posttraumatic stress reactions. Therapists also start with narrative exposure therapy (NET) in the form of a lifeline. The lifeline was constructed based on KIDNET (Neuner et al., 2008) and the treatment protocol for NET from Mauritz et al. (2016). NET is continued in the third session.

-The fourth session consists of case conceptualization, based on the information gathered from the NET and general conversations during the previous sessions. The concept of EMDR is also explained via the help of examples.

-Session 5 & 6 are used for EMDR. The use of EMDR for children is recommended by several guidelines (NICE, 2020; GGZStandaarden, 2020). A shortened protocol (K&J protocol) is used to administer the EMDR.

-Session 7 is the last session of the intervention and is meant to discuss how the patient wants to continue. The therapists provide conclusions and discusses if extra help from other institutions is needed. The questionnaires presented in session two are repeated during this session.

Exceptions to the protocol

The protocol takes into account that EMDR is not applicable for everyone (Mooren et al., 2019). Changes to the procedure and alternative treatments should clearly be explained in the case report. If more sessions are needed, the therapist should consult this with one of the psychologists from Centre '45.

2.3 Materials

CRIES-13

Participants were asked to fill in the CRIES-13 test at the second session and at the last session. The CRIES-13 is an evidence-based screening tool that indicates the presence and severity of PTSD symptoms (Verlinden et al., 2014). By using the pre and posttest CRIES-13 scores, we hope to give an indication of the effect of the intervention on PTSD symptoms. Children rate the frequency of which they experienced each of the items during last week on a 4-point Likert scale (0=not at all, 1=rarely, 3=sometimes, 5=often). The total score indicates the severity of the posttraumatic stress response (Verlinden et al., 2014). The score lies between 0 and 65 with a cutoff score of 30 suggesting a possible diagnosis for PTSD (Perrin, Meiser-Stedman & Smith, 2005; Simons et al., 2019). The test has good overall internal consistency and a test-retest reliability score of .85 (rtt=.85) (Verlinden et al., 2014).

Participants who filled in at least ten of the 13 questions were included (≥75%). Missing values were replaced with a score of zero (Verlinden et al., 2014). Participants that did not complete at least 75% of the post-test were also excluded.

Reliable Change Index (RCI)

In case of small sample sizes a reliable change index can be used to determine the statistical and clinical significance of the test results (Zahra & Hedge, 2010). An RCI of 1.96 in either direction indicates a significant change with a $p<.05$ (Zahra & Hedge, 2010). A score above 1.96 indicates a significant improvement (RCI>1.96). A score below -1.96 signifies a significant impairment (RCI<-1.96). Scores between the values -1.96<RCI<1.96 indicates no significant change (Simons & Kursawe, 2019; Zahra & Hedge, 2010).

If the RCI score is significant and the test score has changed below the cutoff point, this would indicate clinically significant improvement (Zahra & Hedge, 2010). The CRIES-13 has a cutoff score of 30, meaning a significant RCI (RCI>1.96) and a score below 30 would indicate clinically significant improvement. Similarly, a RCI below -1.96 and a CRIES score above 30 signifies clinical impairment. Only participants that met the 75% criteria of the CRIES-13, were included in the RCI analysis.

Case reports

Every respondent had a case report where the progression of the sessions was recorded. The last question of the report asked therapists to note anything significant during the session. By analyzing the questions and notes therapist had written throughout the case report several reoccurring factors could be found as to why minors decided to stop with mental healthcare before the intervention was completed. These factors could indicate potential factors that could by studied in more depth in future research.

3.Results

A total of 44 patients participated in the study (n=44). First, in line with previous studies, the highest number of URM seeking asylum in the Netherlands came from Eritrea (Sleijpen et al., 2016). Secondly, most of the patients were male (Table 1). The annual report from Vluchtelingen Werk Nederland (VWN) also showed that 63% of all refugees coming to the Netherlands are male (VWN, 2020).

All minors had experienced PTE's. Refugees from Eritrea reported the most potential traumatic events (PTE), compared to other groups (Sleijpen et al., 2018). Minors reported the following PTE's:

- Refugee experiences (92.5%), this includes hunger, thirst and long periods of travel,
- experiences with interpersonal or sexual violence (57.5%),
- witnessing the death of a loved one (45%),
- being imprisoned or captured (30%) and
- being present at disasters or accidents (35%).

Many stated that besides their flight or traumatic experiences, their current situation (e.g. housing situation, uncertainty about other family members) played a large role in their current mental health status.

Table 1*: Demographics Veerkracht group (N=44)*

		N (%)			**N (%)**
Gender	Male	28 (63)	Traveled with	Yes	5 (11)
	Female	9 (21)	fellow family	No	8 (18)
	Unknown	7 (16)	members	Unknown	31 (71)
Country of	Eritrea	22 (50)	Age	15	2 (5)
origin	Afghanistan	3 (7)		16	6 (14)
	Syria	4 (9)		17	14 (32)
	Unknown	15 (34)		18	7 (16)
				Unknown	15 (34)
Living	Village	8 (18)			
conditions	City	2 (5)			
	Unknown	32 (77)			

3.1 PTSD symptoms

CRIES-13 results & RCI analysis

Of the 44 patients that were included in this research, 15 met the completion criteria of the CRIES-13 (>75%). These patients could be included in the RCI analysis (n=15). The mean and standard deviation, necessary for the RCI formula, were based on the group that met the inclusion criteria (Simons & Kursawe, 2019). The RCI scores were calculated with the following measurements (N=15, rtt=.85, M [T1]= 41.8, SD [T1]= 9.64).

Table 2: *Reliable Change Index scores CRIES-13 (N=15)*

Respondent	Score T1	Score T2	RCI(se)	RCI(sdif)
1	49	36	3,48	2,46*
2	28	23	1,34	0,95
3	50	32	4,82	3,41*
4	51	6	12,05	8,52**
5	48	4	11,79	8,33**
6	34	28	1,61	1,14
7	53	50	0,8	0,57
8	23	8	4,02	2,84**
9	49	12	9,91	7,01**
10	27	6	5,62	3,98**
11	45	20	6,7	4,73**
12	43	0	11,52	8,14**
13	37	0	9,91	7,01**
14	46	41	1,34	0,95
15	44	0	11,79	8,33**

*:Statistical significance, **:Clinical significance

Table 2 shows that nine patients had a clinically significant improvement (n=9, RCI>1.96, CRIES <30) (Simons & Kursawe, 2019), indicating that these patients no longer met the criteria for the PTSD diagnosis (Verlinden et al, 2014). Two patients had a statistically significant improvement (n=2, CRIES>30, RCI>1.96). Four patients showed no significant improvement, but still showed lower post-test scores (n=4, RCI<1.96).

Interestingly, two patients already had a score below 30 at the start of the intervention. Patient 10 still showed a big improvement after the intervention, while patient 2 had a slight non-significant decrease in the CRIES score.

Paired Samples T-test

At the start of the intervention, URMs had a higher CRIES score (M=41.80, SE=2.49) compared to the score at the end of the intervention (M=17.73, SE= 4.25). The difference between the pre-and posttest was significant ($t(14)=5.75$, $p<.001$). The analysis showed that the posttest had an average score decreased score of 24.07 (SE=16.20), which is a very large difference (Cohen's d =1.46).

Case report findings

Three minors had a CRIES post-score of zero (Table 2). This would indicate that all traumatic stress had disappeared. The case reports showed that two of these three minors had incidents wetting or defecating in bed during the night. Therapists linked these incidents in bed to the nightmares they had while sleeping. These incidents decreased and eventually completely disappeared after EMDR sessions. With the disappearance of incidents in bed, the minors noted to have felt less stress in general. One of these minors retrieved online EMDR sessions. The therapist was remarkably surprised by the results of online EMDR. The third minor with a score of zero stated to no longer feel any stress when they were discussing the stones that were laid out during NET. Sometimes he still felt anger built up inside, but trough breathing exercises he could calm himself down.

The most reoccurring problems were sleep related. All of the participants with significant improvement noted an improvement in nighttime rest. Not all problems were gone, but they slept for a longer period of time and had less frequent nightmares.

Patients with somatic problems that completed the intervention noted that they no longer felt pain when they were in stressful situations.

3.2 Dropout

Nine of the 44 respondents dropped out of therapy after 1-4 sessions (n=9). Patients often had multiple reasons to stop with the intervention, but there was no real homogeneity. Lack of motivation (n=2) and distrust towards others (n=4) were the only reoccurring factors among these minors. There were also patients who ignored all contact with the therapist (n=4), so it was unclear as to why they dropped out.

The Veerkracht protocol recognized EMDR as an intensive form of therapy, that would not lead to beneficial results for everyone (Mooren et al., 2019). Twelve participants reported to have had major difficulties during EMDR (n=12). They experienced headaches during the session and were very tired or in a negative mood afterwards. Half of the participants still continued with EMDR in the following sessions (n=6), mainly due to trusting the therapist or experiencing removal of the emotional load of the traumatic memory. Two patients stopped with treatment (n=2), because of EMDR. One of these respondents noted to become very aggressive quickly as a result of EMDR. The other minor noted that EMDR had stirred up too many traumatic memories and wanted a period to stabilize first, before continuing with treatment. A small group of therapists that started EMDR decided to replace it with another treatment, mostly a form of CBT (n=4).

A relatively large group of URMs never attempted EMDR at all (n=8). Surprisingly every patient had a different reason as to why EMDR was not attempted. Some examples of why EMDR was not attempted were:

- A patient had so much difficulty with NET that the therapist decided EMDR would be too difficult,
- Another patient showed very good progress with CBT that EMDR was no longer necessary,
- One patient was convinced that his mental health problems were not caused by traumatic experiences. He did not want to focus on the experiences that he did not see as troubling,
- In another case the primary problem was wetting the bed, and thus all sessions were dedicated to a bed wetting protocol.

4.Discussion

The study was aimed to evaluate aspects of the culturally adaptive intervention designed at ARQ Centre ’45 (Mooren et al., 2018). Unfamiliarity’s with cultural factors such as religion, free time activities, dialogue barriers and other acculturation problems are often not well enough understood in mental healthcare (van Es et al., 2019). Several authors (e.g., De Anstiss, Ziaian, Procter, Warland & Baghurst, 2009) have added that practical and social problems such as family reunification, housing and education are more important than psychological problems. Furthermore, the traditional psychotrauma model has been criticized for neglecting the resilience of refugee minors (De Anstiss et al., 2009). Also, the mismatch of priorities by therapists and patients may cause a disconnection. Veerkracht II was designed to complement these disconnections (van Es et al., 2019). The approach relied on the coping strategies of patients and attempted to include their main priorities, instead of only focusing on the traumatic events.

The main goal of this study was to assess the impact of Veerkracht II on the PTSD symptoms of URMs. The second objective was to compile factors that could lead URMs dropping out of the intervention. A lack of specialized mental healthcare has led to URMs often dropping out of mental healthcare (Sleijpen et al., 2018). Compiling a list of dropout factors should help to indicate where the intervention could be improved in future research.

A group of 44 minors received help for their mental health issues with the new treatment approach. URMs indeed reported that they were most troubled by the current uncertainties about their asylum status and remaining family members. Most occurring problems were psychological issues with sleeping and concentration. These factors formed a

constant source of stress. The constant exposure to stress and the traumatic histories contribute to an increased risk in developing mental health issues like PTSD, anxiety and depression (Jensen, Skar, Andersson & Birkeland, 2019; Poyraz Findik et al., 2021).

4.1 Changes in PTSD symptoms

Most patients who completed the intervention had a significant decrease in PTSD symptoms. In accordance with the known effectiveness of treating refugees with NET and EMDR, change in PTSD symptoms was expected (Simons & Kursawe, 2019; Turrini et al., 2019).

Forms of exposure therapy, such as NET, are regarded as the most effective forms of therapies in treating traumatic mental health issues (Turrini et al., 2019) The concept of treating traumatic experiences by talking about them was not understood by all minors. They wanted to get rid of their problems instead of reliving them. Most patients completed NET, although often more sessions were needed than the protocol stated (Mooren et al., 2019).

As expected EMDR was not suited to for everyone. Most patients experienced difficulties during these sessions. However, it has not been proven that EMDR could worsen the complaints for refugees (Ter Heide, Mooren, Kleijn, de Jongh & Kleber, 2011). Patients that continued with EMDR seemed to experience benefits. EMDR was preferred to be conducted face to face, as online EMDR was reported to be less to not effective.

The change in CRIES scores was larger than expected. However, these positive results could be somewhat misleading, due to the large amount of missing data. From the 44 participants, only 15 had completed the pre-and post-test. It might have been the case that only participants who noticed a difference were actively continuing the intervention. Thus the results appear quite promising, while the effectiveness of the intervention for the other 29 participants could not be validated with the CRIES-13.

Overall, the short-term mental healthcare approach showed promising results in the treatment of URMs. Treatment was generally positively received, potentially in part due to cultural mediators and the expertise of therapists. All patients attending at least two sessions reported some form of benefits. The CMs were regarded as an essential asset to the intervention. They served as a bridge and were for many minors an accessible point of contact to discuss daily problems.

4.2 Dropout rate

The dropout rate was low, potentially indicating that the intervention met the needs of URMs (Sleijpen et al., 2019). A similar study by Poyraz Findik et al. (2021) also used data

from a clinic specialized in the treatment of refugees with culturally adaptive translators. Their data showed that the dropout rate of URMs was lower compared to research where culturally adaptive treatment was not used. This indicates the potential benefits of a culturally adaptive treatment approach.

No studies could be found that attempted to research dropout factors in a similar fashion. Most dropout factors in other studies were based on demographic factors such as age, gender, education level and the presence of a mental disorder (Diehle et al., 2015; Poyraz Fındık et al., 2021).

The analysis of the case reports resulted in a small list of factors, with some overlapping reasons. Several URMs decided to stop after very few sessions. They had similar non-specific help questions, stating "make me feel better" or not having a question at all. Therapists noted that the intervention was cancelled due to a severe lack of motivation, high levels of distrust and non-response from the minors. The lack of motivation was discussed with one of the main researchers. She stated that it sometimes occurred that the child caregiver was very enthusiastic about Veerkracht and had the idea that the intervention would benefit the URM. These minors were somewhat pushed into the Veerkracht intervention and opted out as soon as they could.

EMDR dropout

Another factor for dropout was EMDR therapy. Reasons given by the participants were that they did not want to be reminded of their past, but came here to forget. EMDR sometimes made the memories to vivid and patients noted to feel worse directly after the session. Others did not quite understand the purpose of the intervention.

4.3 Strengths and limitations

The collection of data had not been finished at the time this thesis was written. The target aim was 60 respondents, which in likelihood will be reached in the following months of 2021. Due to time constraints it was not possible to include all patients. Overall the intervention received general positive feedback from patients, therapists and CM's. During evaluation of Veerkracht I, therapists noted the importance of flexibility within treatment (van Es, Sleijpen, Ghebreab & Mooren, 2019). The flexibility in Veerkracht II allowed therapists to alter the treatment protocol to the patient's needs, which benefitted the implementation of the treatment approach. Although the flexible approach was favored by therapists and CM's,

it complicated drawing conclusions on what aspects of the intervention contributed to the effectiveness.

Inconsistent data

The data analysis revealed that a lot of therapists altered the protocol in order to fit the patient's needs. It is important that treatment is adjusted to the patient's needs (GGZstandaarden, 2020), but this made it difficult to draw conclusion regarding effectiveness of the current treatment approach. Therapists were also not consistent in reporting all findings in the case reports. Due to inconsistent reporting by therapists it was sometimes unclear if sessions were online or in person. It often occurred that the CRIES-13 was only halfway filled in, focusing solely on the questions relevant for the current patient. Patients could only be included in the RCI if 75% of the questionnaire was filled in (Verlinden et al., 2018). It was unfortunate that a large part of the research population did not meet this criterion, because notes from therapists often indicated that patients were experiencing benefits from the intervention.

The results from the data analysis seem positive but there was still a large gap in significant results regarding the patients who lacked essential data for analysis. This causes reliability issues, that should be prevented in future research (Poyraz Findik et al., 2021).

COVID-19

The COVID-19 pandemic changed the way therapy could be given. At the start of the pandemic, it was expected that it would lead to a high dropout rate. A group of patients did not receive face to face therapy for several months, potentially decreasing their motivation. Therapy through video messaging was noted as a less favorable treatment option by most minors and therapists. Both parties stated to feel disconnected from each other and treatments such as EMDR were very difficult to do online. Despite the disadvantages URMs decided to continue with online therapy. Practitioners continued the sessions online, but stated that the intervention could not be implemented as effectively compared to face to face. Therapists of Centre '45 had a firm impression that online therapy in general was less effective for refugees during the COVID pandemic.

Although online therapy and traditional therapy have shown little difference in effectiveness (Barak, Hen, Boniel-Nissim & Shapira, 2008), the willingness to adapt to online therapy was low in this study.

No research on the influence of COVID-19 on the effectiveness of treating traumatic mental health problems could be found. Based on the meta-analysis of Barak et al. (2008), digital therapy should be just as effective as traditional therapy. However, it is likely that the pandemic did not cause problems solely on a psychological level. The lockdown and restrictions have likely caused all sorts of social and practical problems, which are of a higher priority for this group of patients (De Antiss et al., 2009).

4.4 Efficacy and effectiveness

Understanding the efficacy and effectiveness of an intervention is crucial when interpreting the results from studies (Singal, Higgins & Waljee, 2014). Efficacy relates to the existence of an intervention effect and maximizes the likelihood of finding this effect, by creating ideal research settings. Efficacy of the used trauma focused interventions has already been proven in previous literature. More relevant for this study design is the effectiveness, which relates to the applicability of the intervention in a real world setting (Singal et al., 2014). Despite the COVID-19 pandemic leading to several alterations from the intended research design, the study still granted insight of an understudied population in a naturalistic setting. The intervention was tested in the real world, and came across common hurdles such as social insecurities, communication problems and mental set-backs.

The results were promising and indicated that the treatment overcomes barriers related to mental healthcare. With overall improvements in PTSD symptoms, general positive feedbacks from all relevant parties and a small group of URMs dropping out of the intervention. Generalizability of the results still remained difficult, due to the aforementioned lack of significant data. Statements in case reports indicated the positive progression of patients, but this cannot be used as reliable evidence to draw conclusions about the effectiveness.

4.5 Future research

A small and inconsistent research population is a reoccurring problem when studying refugee minors (Poyraz Findik et al., 2021). Other studies also reported data analysis problems due to questionnaires not being fully completed (Poyraz Findik et al., 2021). According to Poyraz Findik and colleagues (2021), there is a need for extensive multicenter studies with larger sample sizes in order to generalize results and further development of mental healthcare services aimed to treat refugee minors.

In order to properly measure the effectiveness of the change in PTSD symptoms, more emphasis in the Veerkracht intervention should be laid on the importance of properly assessing posttraumatic stress reactions, such as by the CRIES-13. The CRIES is a constructive method to evaluate the effectiveness of the intervention on PTSD symptoms (Verlinden et al., 2014). A lot of improving patients could not be included in analysis, because of incomplete CRIES questionnaires. Another possibility is to use a clinical interview method, such as the CAPS-CA (Hukkelberg, Ormhaug, Holt, Wentzel-Larsen& Jensen, 2014). The CAPS-CA has good psychometric properties and is widely used for clinical and research purposes. The downsides are that it requires special training to administer and is very time consuming.

The current design does not allow to measure the effectiveness of individual modules of the intervention. One possible idea is to increase the number of times the CRIES-13 is conducted. With only two measuring moments, it remains unclear what modules of the intervention are most useful.

Finally, many therapists shifted to CBT during the treatment period. CBT is more approachable form of therapy compared to EMDR (Diehle et al., 2014). Future studies should research the potential of including CBT in the protocol.

5.References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.)*. https://doi.org/10.1176/appi.books.9780890425596

Barak, A., Hen, L., Boniel-Nissim, M., & Shapira, N. (2008). A comprehensive review and a meta-analysis of the effectiveness of internet-based psychotherapeutic interventions. *Journal of Technology in Human Services*, *26*(2–4), 109–160. https://doi.org/10.1080/15228830802094429

Bean, T., Derluyn, I., Eurelings-Bontekoe, E., Broekaert, E., & Spinhoven, P. (2007). Comparing psychological distress, traumatic stress reactions, and experiences of unaccompanied refugee minors with experiences of adolescents accompanied by parents. *Journal of Nervous & Mental Disease*, *195*(4), 288–297. https://doi.org/10.1097/01.nmd.0000243751.49499.93

De Anstiss, H., Ziaian, T., Procter, N., Warland, J., & Baghurst, P. (2009). Help-seeking for mental health problems in young refugees: a review of the literature with implications for policy, practice, and research. *Transcultural Psychiatry*, *46*(4), 584–607. https://doi.org/10.1177/1363461509351363

Demazure, G., Gaultier, S., & Pinsault, N. (2017). Dealing with difference: a scoping review of psychotherapeutic interventions with unaccompanied refugee minors. *European Child & Adolescent Psychiatry*, *27*(4), 447–466. https://doi.org/10.1007/s00787-017-1083-y

Diehle, J., Opmeer, B. C., Boer, F., Mannarino, A. P., & Lindauer, R. J. L. (2014). Trauma-focused cognitive behavioral therapy or eye movement desensitization and reprocessing: what works in children with posttraumatic stress symptoms? A randomized controlled trial. *European Child & Adolescent Psychiatry*, *24*(2), 227–236 https://doi.org/10.1007/s00787-014-0572-5

van Es, C. M., Sleijpen, M., Mooren, T., te Brake, H., Ghebreab, W., & Boelen, P. A. (2019). Eritrean unaccompanied refugee minors in transition: a focused ethnography of challenges and needs. *Residential Treatment for Children & Youth*, 36(2), 157-176. Doi: 10.1080/0886571X.2018.1548917

van Es, C., Sleijpen, M., Ghebreab, W., & Mooren, T. (2019). Cultuursensitief werken met alleenstaande jonge vluchtelingen. *Kind & Adolescent Praktijk*, *18*(4), 16–22. https://doi.org/10.1007/s12454-019-0040-y

Fazel, M., Reed, R. V., Panter-Brick, C., & Stein, A. (2012). Mental health of displaced and

refugee children resettled in high-income countries: risk and protective factors. *The Lancet, 379*(9812), 266-282. https://doi.org/10.1016/S0140-6736(11)60051-2

GGZstandaarden (2020).Zorgstandaard psychotrauma- en stressorgerelateerde stoornissen. 65-87. Retrieved from: https://www.ggzstandaarden.nl/uploads/pdf/project/project_78f23e53-297a-4627-ac0e-cc3cf465e6b8_psychotrauma-en-stressorgerelateerde-stoornissen__authorized-at_01-12-2020.pdf

Hukkelberg, S., Ormhaug, S. M., Holt, T., Wentzel-Larsen, T., & Jensen, T. K. (2014). Diagnostic utility of CPSS vs. CAPS-CA for assessing posttraumatic stress symptoms in children and adolescents. *Journal of Anxiety Disorders*, 28(1), 51–56. https://doi.org/10.1016/j.janxdis.2013.11.001

Jensen, T. K., Skar, A. M. S., Andersson, E. S., & Birkeland, M. S. (2019). Long-term mental health in unaccompanied refugee minors: pre- and post-flight predictors. *European Child & Adolescent Psychiatry*, *28*(12), 1–21. https://doi.org/10.1007/s00787-019-01340-6

Kien, C., Sommer, I., Faustmann, A., Gibson, L., Schneider, M., Krczal, E., ... & Brattström, P. (2019). Prevalence of mental disorders in young refugees and asylum seekers in European countries: a systematic review. *European Child & Adolescent Psychiatry, 28*(10), 1295-1310. https://doi.org/10.1007/s00787-018-1215-z

Kleber, R. (2017). Symposium 1: Trauma and resilience in unaccompanied minor refugees. 33-38 Retrieved from: https://www.uniklinikum-leipzig.de/einrichtungen/medizinische-psychologie/Freigegebene%20Dokumente/psychotraumatologie-reader-medizinische-psychologie-uniklinikum-leipzig.pdf

Knipscheer J.W., Sleijpen, M., Mooren, T., ter Heide, J., van der Aa, N.(2015) Trauma exposure and refugee status as predictors of mental health outcomes in treatment-seeking refugees. *BJ Psych Bulletin*, 39, 178-182. doi: 10.1192/pb.bp.114.047951

Kramer, S., & Bala, J. (2004). Managing uncertainty; coping styles of refugees in western countries. *Intervention: International Journal of Mental Health, Psychosocial Work and Counseling in Areas of Armed Conflict*, *2*(1), 33-42.

Luthar, S. S., & Goldstein, A. (2004). Children's exposure to community violence: implications for understanding risk and resilience. *Journal of Clinical Child & Adolescent Psychology, 33*(3), 499–505.https://doi.org/10.1207/s15374424jccp3303_7

Mauritz, M. W., Van Gaal, B. G. I., Jongedijk, R. A., Schoonhoven, L., Nijhuis-van der

Sanden, M. W. G., & Goossens, P. J. J. (2016). Narrative exposure therapy for posttraumatic stress disorder associated with repeated interpersonal trauma in patients with severe mental illness: a mixed methods design. *European Journal of Psychotraumatology*, *7*(1), 32473. https://doi.org/10.3402/ejpt.v7.32473

Mooren, T., van Loon, R., van Es, C., & Sleijpen, M. (2019). Protocol: Trauma geïnformeerde module AMV-Concept. Diemen: Arq Centrum 45, intern rapport.

Neuner, F., Catani, C., Ruf, M., Schauer, E., Schauer, M., & Elbert, T. (2008). Narrative exposure therapy for the treatment of traumatized children and adolescents (KidNET): from neurocognitive theory to field intervention. *Child and Adolescent Psychiatric Clinics of North America*, *17*(3), 641–664. https://doi.org/10.1016/j.chc.2008.03.001

NICE guidelines (2018). Posttraumatic Stress Disorder. 28-43. Retrieved from: https://www.nice.org.uk/guidance/ng116/resources/posttraumatic-stress-disorder-pdf-66141601777861

Oppedal, B., Ramberg, V., & Røysamb, E. (2020). The asylum-process, bicultural identity and depression among unaccompanied young refugees. *Journal of Adolescence*, 85, 59-69. https://doi.org/10.1016/j.adolescence.2020.07.007.

Perrin, S., Meiser-Stedman, R., & Smith, P. (2005). The Children's Revised Impact of Event Scale (CRIES): validity as a screening instrument for PTSD. *Behavioural and Cognitive Psychotherapy*, *33*(4), 487-498. Doi:10.1017/S1352465805002419

Poyraz Fındık, O. T., Çeri, V., Ünver, H., Perdahlı Fiş, N., Rodopman Arman, A., Beşer, C., Fadilglu, E., Anagnostopoulos, D. (2021). Mental health need and psychiatric service utilization patterns of refugee children in Turkey: a comparative study. *Children and Youth Services Review*, *124*, 105970. https://doi.org/10.1016/j.childyouth.2021.105970

Projectteam Veerkracht (2018). Rapport Modules 'Stress en Selfcare' en 'Trauma-geïnformeerde Behandeling". Diemen: Arq Centrum 45, intern rapport.

Eriksson, E. & Rundgren A.H. (2019) Coping with life in a newcountry – affect regulation based on unaccompanied refugee minors' needs, *European Journal of Social Work*, *22*:6, 1012-1024, DOI: 10.1080/13691457.2018.1469469

Simons, M., & Kursawe, A. L. (2019). Metacognitive therapy for posttraumatic stress disorder in youth: a feasibility study. *Frontiers in psychology*, *264*(10),1-7. Doi:10.3389/fpsyg.2019.00264

Singal, A. G., Higgins, P. D., & Waljee, A. K. (2014). A primer on effectiveness and efficacy trials. *Clinical and Translational Gastroenterology*, *5*(1), doi:10.1038/ctg.2013.13

Sleijpen, M. J. T. (2015). Niet voor spek en bonen: Veerkracht bij jonge vluchtelingen.

Cogiscope, 4, 25-28.

Sleijpen, M., Boeije, H.R., Mooren T. & Kleber, R.J. (2016). Between power and powerlessness: a meta-ethnography of sources of resilience in young refugees. *Ethnicity and Health, 21*, 158-180, DOI: 10.1080/13557858.2015.1044946

Sleijpen, M., Boeije, H.R., Mooren T. & Kleber, R.J. (2017). Lives on hold: a qualitative study of young refugees' resilience strategies. *Childhood, 24*, 348-365. doi: 10.1177/0907568217690031

Sleijpen, M., van Es, C., te Brake, H., & Mooren, T. (2018). Toolkit voor de begeleiding van Eritrese alleenstaande minderjarigen in Nederland. Diemen: Arq Psychotrauma Expert Groep, interne publicatie.

Stein J.J.J. (2012). Assessing cognitive changes in the elderly: reliable change indices for the mini-mental state examination. *Acta Psychiatrica Scandinavica* 126(3):208-218 DOI: 10.1111/j.1600-0447.2012.01850.x

Ter Heide, F. J. J., Mooren, T., Kleijn, W., de Jongh, A., & Kleber, R. (2011). EMDR versus stabilisation in traumatised asylum seekers and refugees: results of a pilot study. *European journal of Psychotraumatology*, *2(*1), 5881. DOI: 10.3402/ejpt.v2i0.5881

Turrini, G., Purgato, M., Acarturk, C., Anttila, M., Au, T., Ballette, F., . . . Barbui, C. (2019). Efficacy and acceptability of psychosocial interventions in asylum seekers and refugees: systematic review and meta-analysis. *Epidemiology and Psychiatric Sciences*, *28*(04), 376–388. https://doi.org/10.1017/s2045796019000027

UNHCR (1994). *Refugee children. Guidelines on protection and care.* United Nations High Commisioner for Refugees, Geneva

Unterhitzenberger, J., Eberle-Sejari, R., Rassenhofer, M., Sukale, T., Rosner, R., & Goldbeck, L. (2015). Trauma-focused cognitive behavioral therapy with unaccompanied refugee minors: a case series. *BMC Psychiatry*, *15*(1), 1-9. DOI 10.1186/s12888-015-0645-0

Verlinden, E., van Meijel, E. P., Opmeer, B. C., Beer, R., de Roos, C., Bicanic, I. A., ... & Lindauer, R. J. (2014). Characteristics of the Children's Revised Impact of Event Scale in a clinically referred Dutch sample. *Journal of Traumatic Stress*, *27*(3), 338-344. Doi: 10.1002/jts.21910.

Vluchtelingenwerk Nederland (2020, August 12). *Vluchtelingen in getallen 2020* [report]. Retrieved from: https://www.vluchtelingenwerk.nl/sites/default/files/u36436/vluchtelingen_in_getallen_2020_v11.pdf

Zahra, D., & Hedge, C. (2010). The reliable change index: why isn't it more popular in

academic psychology. *Psychology Postgraduate Affairs Group Quarterly, 76*(76), 14-19.

6. Appendix

Appendix A*: Inclusion & exclusion criteria*

Inclusion criteria	**Exclusion criteria**
Participants should be under the age of 18. Refugees that recently became 18, are sometimes still included.	Participants older than 19 are not allowed participate in this intervention. The age of 18 is still seen as acceptable, if for example the caretaker still has a strong parental role with the URM.
Minors suffer from psychosocial complaints. These are: Traumatic stress, concentration problems, sleeping problems, difficulties interacting with others, depressive symptoms and rumination.	In case of very urgent psychological concerns, such as serious suicidal treats or psychotic symptoms, minors cannot participate in the intervention. These cases require a more intensive approach such as medication or admission.
Healthcare professionals expect participants to experience difficulties if they would be send to basic mental health care.	Minors who are expected to be relocated to another country on a very short bases cannot be admitted to the intervention.