An eye for complexity:
EMDR versus stabilisation in traumatised refugees
(met een samenvatting in het Nederlands)

An eye for complexity: EMDR versus stabilisation in traumatised refugees

Oog voor complexiteit: EMDR versus stabilisatie bij getraumatiseerde vluchtelingen

(met een samenvatting in het Nederlands)

Proefschrift

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Contents

Voor mijn lieve ouders, zus en zoons
Moem, Jack †, Annemarie, Jacob en Tijmen ter Heide

Part I
Departure

The psychological aftereffects of displacement by war cannot be understood simply as the product of an acute and discrete stressor, but depend crucially on the economic, social, and cultural conditions from which refugees are displaced and in which refugees are placed.

(Porter & Haslam, 2005, p. 611)

Chapter 1 Introduction

The 'Refugee Problem'

I come from an area where there was a war, and I was in the war, and during the war I was with my children in a concentration camp. The Red Cross liberated me and I came to the Netherlands. In the beginning I thought: I can handle this, I'm going to work. But after a very long time, I just couldn't, mentally and physically. I slept badly, I couldn't deal with people, I wanted to be alone, to have something to do. And later I got physical problems and I could do hardly anything, I didn't feel like it. But still I wanted to work. Then fortunately my colleague and my daughter said: you can't do this anymore. Because I worked but for years I worked in tears.[1]

Throughout history, people have sought to escape the atrocities of war and organised violence by seeking refuge in other countries. In the 20th century, large-scale displacement after World War II prompted the United Nations to seek international agreement on how to safeguard the rights and well-being of refugees (e.g. Mooren & Braakman, 2012). In recent decades, this agreement has frequently been put to the test as refugee numbers have again peaked as a result of war and armed conflict in the former Eastern bloc, the African continent and the Middle East. Sometimes the refugee problem catches the public eye, such as when boats sink and bodies are washed ashore. Oftentimes, the plight of refugees is hidden. Many refugees struggle to attain the levels of well-being that the United Nations seek to promote. Mental health is an essential element of that well-being, and as such, nation states have a moral obligation to promote mental health in refugees. The desire for mental health and mental healing is shared by people all over the world, regardless of culture (Kleinman, 1980). However, the strategies by which these may be obtained may differ. This thesis is about the effort to help refugees deal with mental trauma through the use of a western method of healing, Eye Movement Desensitisation and Reprocessing (EMDR; Shapiro, 2001).

Refugee Mental Health

I asked for help at Centrum '45 when my past was bothering me. I was in prison for five years because of my political activities. I remember that I left my work and I called Centrum '45 in tears. I felt powerless, I said I just need help, I have so many nightmares about the past. I also felt so much guilt, because my cell mate was no longer alive, and I was deeply unhappy. That is why I called.

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[1] Excerpts are, with permission, taken from interviews with refugee patients treated at Centrum '45.

The psychosocial problems of traumatised refugees who seek treatment for mental distress are often considered complex because of trauma-related, legal and social factors (e.g. Kleber, Figley, & Gersons, 1995). The word trauma literally means 'wound', and clinicians use the word 'psycho-trauma' to distinguish wounds inflicted on the soul from those inflicted on the body. Many refugees have sustained severe physical and psychological trauma under circumstances such as war, political imprisonment and human trafficking (e.g. Silove, Tarn, Bowles, & Reed, 1991). Legally, refugees are or have been involved in a process of gaining a residency status in a country of refuge, the outcome of which is of pivotal existential importance as it determines who may stay and who must go (e.g. Laban, Gernaat, Komproe, Schreuders, & De Jong, 2004; Robjant, Hassan, & Katona, 2009). Socially, refugees experience the consequences of forced migration, including low social-economic status and fear for loved ones who have remained in the country of origin (e.g. Nickerson, Silove, Steel, Bryant, & Brooks, 2010).

The combined posttraumatic, legal and social burden may greatly impact refugees' psychological functioning in areas such as sense of safety, attachment and bonding, identity and role functioning, justice and existential meaning (Silove, 1999). For some, it may contribute to the development of mental disorders, including posttraumatic stress disorder, depression, anxiety and psychotic illness (e.g. Fazel, Wheeler, & Danesh, 2005). Posttraumatic stress disorder (PTSD; American Psychiatric Association, 2013) is the diagnostic label for a syndrome that consists of symptoms of intrusion, avoidance, negative changes in cognitions and mood, and hyperarousal as a result of traumatic experiences. Although the western emphasis on PTSD in refugees has been criticised (e.g. Summerfield, 2001), PTSD is the most prevalent mental disorder found in refugees. PTSD rates have been found to range from 9% in refugees resettled in western countries (Fazel et al., 2005) to 30.6% among all refugees including those sheltered within their country of origin (i.e., internally displaced) and within their region of origin (Steel et al., 2009).

In addition to PTSD, refugees are often claimed to be especially vulnerable to developing so-called complex PTSD (e.g. Cloitre et al., 2009). Complex PTSD is a construct that has, as yet, no official diagnostic status but that continues to generate great clinical interest. The central idea behind the complex PTSD construct is that complex (i.e., prolonged, repeated, interpersonal) traumatic experiences result in a clearly delineated posttraumatic syndrome (complex PTSD) that is different from regular PTSD (e.g. Herman, 1992a). Complex PTSD is characterised by problems regulating emotions, a disturbed sense of self, and disturbed interpersonal relationships (e.g. Maercker et al., 2013). As many refugees have been exposed to complex traumatic experiences, they are assumed to be at increased risk of

developing such problems. Consequently, complex PTSD plays a part in the search for effective mental health care for refugees.

Refugee Treatment

It depends on the problem – I think, if it is such a difficult, complex problem, one cannot be helped. That is my experience. Maybe with simple and circumscribed things, like an accident or someone has died or a house has burnt down. But with complex problems like war, concentration camps, leaving one's children, leaving one's husband, a new country and a new life, leaving family, murdered family… That is too much.

Given the complexity of refugee patients, the suitability of different kinds of treatment for traumatised refugees has been subject of ongoing debate. Trauma-focused treatments, such as trauma-focused cognitive-behavioural therapy (TF-CBT) and EMDR, are recommended as treatments of choice in adult patients suffering from PTSD (e.g. National Institute for Clinical Excellence [NICE], 2005). Trauma-focused treatments are treatments that aim at alleviating PTSD-symptoms by exposing patients to trauma-related memories, emotions, sensations and cognitions. However, with patients who experience regular PTSD as well as complex PTSD, primary trauma-focused treatment is believed to be insufficiently effective or even harmful (e.g. Herman, 1992b). Therefore with these patients an alternative treatment model is recommended in which a trauma-processing phase is preceded by a phase of psychosocial stabilisation during which explicit exposure is avoided (e.g. Cloitre et al., 2012). Stabilisation is a supportive type of treatment that aims at alleviating PTSD-symptoms by promoting psychosocial safety and development of coping skills. This recommendation is as yet largely practice-based.

Despite a dearth of scientific evidence, the recommendation of phase-based treatment has exerted and continues to exert a great influence on psychological treatment of refugees suffering from PTSD. Many refugees, especially those living in unstable circumstances, are believed to have insufficient psychosocial stability to be able to benefit from trauma-focused treatment, and are therefore treated with stabilising interventions only or are denied psychological treatment (e.g. Başoğlu, 2006; Rijnders, 2002; Ter Heide & Del Prado-Keller, 2004). Thus, paradoxically, the recommendation of phased treatment which is intended to increase treatment-response and prevent harm in severely traumatised patients may result in under-treatment of refugees who experience PTSD. This under-treatment is ethically problematic because PTSD has been shown to interfere with the ability of refugees to function as individuals and in their families, communities and society as a whole (e.g. Söndergaard & Theorell, 2004; Weine et al., 2004).

Earlier we used the metaphor of being wounded to describe the psychological consequences of exposure to traumatic experiences. Another metaphor is that of being stained. Many trauma survivors, especially those exposed to experiences involving body fluids like blood or semen and those who have inflicted violence on others, perceive themselves as physically or morally dirty. Within such a metaphor, treatment is an act of cleaning rather than healing, and the discussion on the suitability of direct trauma-focused treatment versus phased treatment in refugees can be compared to a discussion on how to wash clothes. Some clinicians state that clothes that are badly stained may be washed properly with just a main wash. Others argue that they need to be soaked and prewashed in order to remove the stains, or that they should not be machine-washed at all in order to prevent tearing the cloth: the cloth remains dirty but at least it is not torn.

Clarifying the validity of both sides of this argument – of direct trauma-focused treatment versus phased treatment – is an important step towards improving the effectiveness of treatment for refugees who suffer from PTSD. One type of treatment that may show promise in alleviating PTSD in refugees is EMDR.

EMDR

I have lost my feelings of guilt and my nightmares. There are memories, but they are good memories, not painful ones. I can safely say: I've never had that nightmare again. Before EMDR I had a number of thoughts and memories that made me very emotional: it must be my fault, why am I alive? At a certain point I couldn't handle it anymore, the nightmares woke me up. I was afraid at night to go to the bathroom. I lived alone, I locked my door. That has all disappeared. I have a bigger house now and I still live alone, but the fear has gone.

This thesis leans heavily on a randomised controlled trial comparing the safety and efficacy of EMDR with that of stabilisation in refugees suffering from chronic PTSD. EMDR is a trauma-focused treatment which combines a focus on thoughts, memories, feelings and sensations related to a traumatic image with an attention-demanding task (e.g. Van den Hout & Engelhard, 2012). Since its conception in 1989, EMDR has been shown to be safe and effective in a variety of populations (e.g. Bisson et al., 2007). However, scientific interest in transcultural applicability of EMDR has been limited.

At the time of designing the trial (2005-2007), evidence concerning the efficacy of trauma-focused treatment in refugees was limited to a few studies of TF-CBT, including Narrative Exposure Therapy (NET). While at this time the practice of extensively or solely stabilising refugees was still widely established, proponents of trauma-focused treatment were starting to press the point of offering trauma-

16

focused treatment to *all* patients who suffer from chronic PTSD (e.g. Bisson et al., 2007). EMDR especially was gaining wide acceptance as a treatment modality across Europe, and it seemed particularly feasible with refugees as it does not include homework assignments and requires less talking than cognitive processing therapy or imaginary exposure.

The Netherlands, which hosts about 250.000 refugees, has made a strong contribution to ideas on refugee mental health care (Rohlof, Groenenberg, & Blom, 1999). In the Netherlands, therapists working with traumatised refugees started to experiment with EMDR and several case series were published (Groenenberg & Van Waning, 2002; Stöfsel, 2005). The institute where I worked before we designed the trial (Symfora Group in Almere) is an example of an institute where initially treatment-seeking asylum seekers were given medication only, but where, after EMDR training, therapists were quite successful at treating asylum seekers and refugees with EMDR. These clinical observations seemed to concur with the idea that all patients should be offered trauma-focused treatment and to clash with the idea that refugees in unstable circumstances were unable to benefit from trauma-focused treatment. The polarisation between these two ideas lies at the basis of our trial. EMDR, whose safety and efficacy with refugees had not yet been examined, was the eligible treatment to try and test the hypothesis that trauma-focused treatment with refugees, even those living in unstable circumstances, is safe and effective.

Aim, Research Questions and Hypotheses

The aim of all studies reported in this thesis is to contribute to an improvement of mental health care offered to refugees and thereby to an alleviation of suffering in traumatised refugees and an increase in their potential to grow and participate in their family, community and society as a whole. To this end, we have formulated three main research questions:

1. What is the safety and efficacy of EMDR compared to that of stabilisation in traumatised asylum seekers and refugees?
2. What is the applicability of the complex PTSD construct to refugees?
3. Can traumatised asylum seekers and refugees be safely and effectively treated with trauma-focused therapy?

Central hypotheses of this thesis are that:

1. EMDR with traumatised refugees is equally safe as and more effective than stabilisation,
2. the complexity of refugees is of a different kind than that captured by the complex PTSD construct, and
3. traumatised refugees, including those without a refugee status, can be safely and effectively treated with trauma-focused interventions.

General Outline

In this thesis, our research questions and hypotheses are examined in eight chapters divided into four parts. Besides this introduction, the first part consists of chapter 2 which sketches the psychosocial challenges faced by refugees and how these may impact on the delivery of trauma-focused treatment, as well as reviews the existing evidence for EMDR in refugees.

The second part focuses on the safety and efficacy of EMDR with traumatised refugees. Chapter 3 describes the outcome of a randomised pilot study of EMDR versus stabilisation in 20 traumatised refugees, conducted at Centrum '45 in the Netherlands. Chapter 4 is a report of the outcomes of a full randomised controlled trial comparing the safety and efficacy of EMDR versus stabilisation in 72 refugees suffering from chronic PTSD.

While the second part focuses on treatment intervention as a predictor of mental health outcome in refugees, the third part consists of an exploration of patient characteristics that may influence treatment outcome. Chapter 5 is an examination of demographical, trauma-related and clinical characteristics that may predict treatment response in the trial participants. In chapter 6, data of routine outcome monitoring are used to compare response to treatment as usual of refugees with that of patients suffering from profession-related trauma treated at the same institute.

In the last part, we return to the main research research questions. In chapter 7, a case is put forward against an emphasis on complex PTSD in refugees and in favour of trauma-focused treatment in refugees by summarizing the evidence concerning complex PTSD and trauma-focused treatment in refugees over the last 15 years. Chapter 8 is a discussion of the strengths, limitations and implications of this thesis and draws an overall conclusion. Dutch readers may read the summary in chapter 9.

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19

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Chapter 2
EMDR with traumatized refugees:
From experience-based to evidence-based practice

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Abstract

Many refugees resettled in western countries suffer from an accumulation of traumatic and current stressors that contribute to mental health problems and may complicate trauma-focused treatment. Consequently, the acceptability, safety and efficacy of trauma-focused treatment with refugees has been a matter of clinical and scientific interest. In recent years, the evidence has accumulated for narrative exposure therapy and culturally adapted cognitive-behavioural therapy. Although EMDR is practiced with resettled refugees, only five small studies of limited quality have been conducted on EMDR with this population. In the absence of strong evidence, therapists practising EMDR with refugees may be aided by transcultural psychiatric principles, especially matching of explanatory models. In addition, high-quality research is needed to reliably determine acceptability, safety and efficacy of EMDR with traumatised refugees.

Keywords: EMDR, refugees, systematic review, transcultural psychiatry.

Introduction

Armed conflict, war, disaster and persecution are forces that worldwide cause survivors to leave their homes and seek refuge elsewhere. While psychological treatment of those who are left traumatised by these experiences may be imperative for successful repatriation or resettlement, it is a great clinical challenge. Eye movement desensitisation and reprocessing (EMDR) has been found efficacious in treating chronic posttraumatic stress disorder (PTSD; American Psychiatric Association, 2013) in both adults (Bisson et al., 2007) and children (Rodenburg, Benjamin, De Roos, Meijer, & Stams, 2009). Consequently, EMDR is recommended as a treatment-of-choice in treatment guidelines for PTSD (e.g. National Institute for Clinical Excellence [NICE], 2005; Tol, Barbui, & Van Ommeren, 2013). Following treatment guidelines, western centres for refugee mental health are increasingly using EMDR with their refugee patients (e.g. Lab, Santos, & De Zulueta, 2008; Robertson, Blumberg, Gratton, Walsh, & Kayal, 2013; Sjölund, Kastrup, Montgomery, & Persson, 2009). EMDR may be a suitable approach for refugees because it does not include homework assignments, may minimalise language issues because speech is not always necessary, and has been found efficacious with patients from non-western cultural backgrounds (Jaberghaderi, Greenwald, Rubin, Zand & Dolatabadi, 2004). However, conclusions drawn based on research with general populations, even when cross-cultural, may not necessarily generalise to refugees. Refugees suffering from chronic PTSD are generally considered complex populations with whom the efficacy of psychotherapy should be separately studied. Unfortunately, so far evidence on EMDR with refugees has been scarce. The aim of this paper is to increase awareness of possible challenges involved in

EMDR treatment with refugees and stimulate outcome research of EMDR with this population. To that end, this paper outlines the psychosocial and transcultural complexities of treating traumatised refugees with EMDR, evaluates the research to date, and proposes a research agenda.

Refugee Trauma and Treatment

Who is a Refugee?

Who is defined as refugee is primarily a legal matter. Refugees are those who, because of to well-founded fears of persecution for reasons of race, religion, nationality, membership of a particular social group, or political opinion, are outside their countries of nationality, and are unable or unwilling to avail themselves of the protection of those countries. Those who are legally acknowledged to meet this definition are granted the right not to be sent back to their countries of origin. Asylum seekers are those whose claim to that right is still under examination. In 2013, 11.1 million refugees and 987.5 thousand asylum seekers were of concern to the United Nations High Commissioner for Refugees worldwide (see www. unhcr.org). Most refugees are originally from Asia and Africa and find shelter in their regions of origin, but a fifth of refugees resettle in the West (Europe, North America and Australia). This paper is concerned with the subgroup of resettled refugees who seek treatment in western mental health settings for trauma-related disorders.

Refugee Stressors and Mental Health

Mental health of refugees is generally acknowledged to be influenced both by traumatic and current stressors (e.g. Miller & Rasmussen, 2010). Refugees are at high risk of experiencing traumatic events before, during and after their flight (Silove, Tarn, Bowles, & Reid, 1991). Before fleeing, traumatic events may vary from imprisonment and torture in political refugees, forced witnessing and committing of atrocities in former child soldiers, and bombings and rape in civilian war survivors, to injury and witnessing the death of others in refugee military veterans. The flight itself may be traumatising because refugees often employ the use of smugglers to cross international borders and in the process may face serious threats including injury or death or human trafficking (e.g. Arbel & Brenner, 2013). After the flight refugees are at risk of being imprisoned or deported (e.g. Robjant, Hassan & Katona, 2009), whereas women and children are at special risk of sexual abuse or exploitation (see www.unhcr.org). Meta-analytically, torture and a cumulative number of traumatic experiences form risk factors for development of PTSD and depression in adult refugees, with torture explaining almost a quarter of the variance in PTSD (Steel et al., 2009). In refugee children also the key risk

factor for PTSD is exposure to violence (Fazel, Reed, Panter-Brick, & Stein, 2011).

In addition, current stressors both in the country of refuge and the country of origin impact the mental health of both adults and children (Fazel et al., 2011; Steel et al.). Obtaining the legal label of refugee in a western country often requires a lengthy asylum process which carries a tremendous amount of stress (e.g. Laban, Gernaat, Komproe, Schreuders, & De Jong, 2004; Robjant et al., 2009). Also after obtaining a residency status, refugees have to cope with stressors such as loss of country, cultural resources, family, friends and social status (e.g. Summerfield, 2001). At the same time, family and friends in the country of origin may continue to suffer from ongoing conflict, causing great anxiety to those living in relative safety.

Consequently, for adult refugees resettled in western countries, prevalence of PTSD is around 9% and prevalence of depression around 5% (Fazel, Wheeler, & Danesh, 2005). Upon inclusion of those who have fled to another region in their own countries (internally displaced persons) and of refugees and asylum seekers in developing countries, prevalence rates rise to 31% for both PTSD and depression (Steel et al.). For refugee children and adolescents living in western countries, PTSD prevalence ranges from 7 to 17% (Fazel et al., 2005), depression from 3 to 30% (Bronstein & Montgomery, 2011). The accumulation of stressors not only leaves refugees at higher risk of developing mental health problems than general populations (Bronstein & Montgomery; Fazel et al., 2005), economic migrants (Lindert, Von Ehrenstein, Priebe, Mielck, & Brähler, 2009) and compatriots who have stayed in their countries of origin (Porter & Haslam, 2001), but may also complicate their psychosocial recovery.

Trauma-Focused Therapy with Refugees: Clinical Challenges

Because of the accumulation of traumatic and current stress faced by refugees, treatment for traumatised refugees has long consisted of supportive, unstructured, multimodal interventions, with no central focus on processing of traumatic memories and with limited effectiveness (e.g. Boehnlein et al., 2004; Carlsson, Mortensen, & Kastrup, 2005). However, in response to the evidence-base for trauma-focused cognitive-behavioural therapy (TFCBT) and EMDR (e.g. Bisson et al., 2007), trauma-focused treatment has increasingly been incorporated in care as usual with refugees. To fine-tune care provision, several authors have drawn attention to the clinical challenges faced when providing trauma-focused treatment to refugees.

Acceptability. Authors such as Summerfield (1999) and Miller, Kulkarni and Kushner (2006) have addressed the issue of acceptability of individual trauma-focused treatments to refugees. They argue that a predominant treatment focus

on trauma and PTSD may not fully meet refugees' needs for various reasons. First, contrary to single traumatic experiences such as traffic accidents, war and persecution primarily cause destruction at a societal rather than an individual level. Interventions should therefore primarily be aimed at collectives rather than individuals. Second, although trauma-focused treatments have been designed to alleviate PTSD, the PTSD construct may not appropriately reflect refugees' responses to experiences of war or persecution. These may consist of different symptom constellations for which tailored interventions may need to be designed. Third, the notion of 'working through' of traumatic experiences is of western origin and may not be applicable transculturally (see also Kleber, Figley, & Gersons, 1995), with some refugees preferring present-centred interventions over trauma-focused interventions (e.g. Morris et al., 1993). Fourth, survivors of war and persecution tend to prioritise practical concerns such as obtainment of work, education and housing over mental health concerns and trauma-focused therapy may therefore not appeal to them. Although these arguments have served to raise awareness of the need for holistic and tailored approaches, objections have also been made. Hinton and Lewis-Fernández (2011) have shown that, although transcultural variation may exist in the prevalence of avoidance and somatic symptoms and in the interpretation of traumatic events and trauma-related symptoms, PTSD is found across cultures in response to traumatic events. Other authors (e.g. Hodes & Goldberg, 2002) argue that trauma-focused therapy may be imperative for a subgroup of refugees who do not recover from PTSD after having their practical needs met.

Safety. There is a longstanding assumption within refugee care that exposure to traumatic memories may lead to unmanageable distress or adverse effects (e.g. Nickerson, Bryant, Silove, & Steel, 2011). This assumption is rooted within the conceptualisation of refugees as suffering from complex PTSD (e.g. Palic & Elklit, 2011). Complex PTSD includes the core symptoms of PTSD in conjunction with emotion regulation difficulties, disturbances in relational capacities, alterations in attention and consciousness, adversely affected belief systems, and somatic distress or disorganisation (Cloitre et al., 2012). The few studies that have been conducted on complex PTSD in refugees have shown that most traumatised refugees do not suffer from complex PTSD (De Jong, Komproe, Spinazzola, Van der Kolk, & Van Ommeren, 2005; Palic & Elklit, 2014; Teodorescu, Heir, Hauff, Wentzel-Larsen, & Lien, 2012; Weine et al., 1998). Nevertheless, a phased treatment approach, fitting with the complex PTSD diagnosis, is often advised for traumatised refugees (e.g. NICE, 2005). According to this approach, to avoid symptom increase, trauma-focused work should not be undertaken until a secure treatment alliance has been formed and the patient is physically safe and emotionally and behaviourally stable.

As many refugees are living in unsafe or unstable conditions, especially during the asylum process, their ability to undergo trauma-focused therapy is often clinically questioned. In recent years, the experience-based emphasis on physical safety has been challenged by research indicating that asylum seekers may benefit from unphased trauma-focused therapy even in the absence of a residency status (e.g. Neuner et al., 2010; Stenmark, Catani, Neuner, Elbert, & Holen, 2013). Although the evidence is still limited, these findings may result in a shortening of the stabilisation phase and offering trauma-focused treatment to a broader range of refugees.

28

   Efficacy. The efficacy of offering western trauma-focused treatments to non-western clients has been a matter of transcultural interest (Wilson & Drožđek, 2007). It has been argued that all clients suffering from PTSD, regardless of cultural background, should be offered trauma-focused treatment, but that cultural adaptations to trauma-focused treatments may need to be made to increase efficacy (Zayfert, 2008). Meta-analytically, the main reason why culturally adapted psychotherapy is significantly more effective than non-adapted psychotherapy is because it offers a better match between therapy and client in explanatory models of mental illness and psychological distress (Benish, Quintana, & Wampold, 2011). Ethnic matching between client and therapist, although often preferred by clients, has not been shown to increase efficacy (Cabral & Smith, 2011). However, language matching (conducting psychotherapy in the client's mother tongue) has (Griner & Smith, 2006). As refugee populations are usually culturally diverse, language matching may not always be possible. Consequently, interpreters may need to be used, which alters therapeutic alliance and process (e.g. Miller, Martell, Pazdirek, Caruth, & Lopez, 2005). Although in some clinical trials of trauma-focused therapy interpreters have been used (e.g. Neuner et al., 2010; Stenmark et al., 2013; Ter Heide, Mooren, Kleijn, De Jongh, & Kleber, 2011), it is too early to draw definite conclusions on the influence of interpreters on treatment effectiveness.

   Although literature on the issues of acceptability, safety and efficacy of trauma-focused treatment with refugees has served to alert clinicians to potential clinical challenges, transcultural data are providing increasing clarity on which arguments hold under scientific scrutiny. In recent years, the evidence has accumulated for two forms of trauma-focused therapy, which we will discuss in the following paragraph.

Psychological Treatment of Refugees: Current Evidence

As noted, treatment for refugees has long consisted of multimodal, supportive interventions and sometimes care was taken "not to remind survivors of their past traumatic experiences" (McIvor & Turner, 1995, p. 707). Since the publication of

the first trauma-focused trial comparing CBT and exposure therapy in refugees, which resulted in large effect sizes for both conditions (Paunovic & Öst, 2001), this stance has become increasingly untenable. Two forms of trauma-focused treatment that have since gathered most evidence also take a cognitive-behavioural approach. In narrative exposure therapy (NET) refugees are exposed to traumatic memories and associated emotions by narrating their life story, of which a written report is made (Schauer, Neuner, & Elbert, 2005). In NET, transcultural acceptability has been taken into account by employing the cross-cultural form of narrative, whereas the provision of a written report that may be presented as statement in a legal or human rights context may also increase acceptability to refugees. NET has been shown to have high safety as well as result in very large effect sizes with refugees in stable and less stable settings (Nickerson et al., 2011; Palic & Elklit, 2011; Robjant & Fazel, 2010; Stenmark, Catani, Neuner, Elbert, & Holen, 2013). A second treatment resulting in large effect sizes is a form of culturally adapted CBT (CACBT) developed by Hinton and colleagues (2004, 2005). CACBT pays special attention to treatment acceptability by focusing interventions on culture-specific symptoms and using interventions that may have culture-specific appeal. Treatment protocol consists of various interventions, including relaxation, mindfulness, visualisations, and exposure to culture-specific somatic sensations and traumatic memories. NET and CACBT are similar in that they are both highly structured treatments that are limited in length, but they differ greatly in how much time is spent on processing of traumatic memories: While trauma processing is the main intervention in NET, it is only minimal in CACBT.

In conclusion, current evidence points to the safety and efficacy of trauma-focused treatment with resettled refugees when providing a culture-sensitive rationale and intervention. We now turn to the practice and research of EMDR with traumatised refugees.

EMDR with Traumatised Refugees: Practice and Research

EMDR in Western Mental Health Settings

The individual EMDR protocol for PTSD consists of the following steps: 1) taking of patient history and treatment planning; 2) preparation through psycho-education and stabilising interventions; 3) assessment of the target memory and its corresponding negative and positive cognitions, emotion, and level and location of distress; 4) desensitisation and reprocessing of traumatic material using an attention-demanding task such as tracking the therapist's fingers with the eyes; 5) installation of positive cognition; 6) scanning of the body for remaining distress; 7) session closure; and 8) re-evaluation (Shapiro, 2001). The children's protocol

has some age-appropriate adaptations (Rodenburg et al., 2009). With traumatised refugees, the EMDR protocol can be applied as the sole therapeutic intervention or as part of a phased or multimodal approach.

Several case reports have appeared describing the successful use of EMDR with refugees from diverse cultural backgrounds. Ross and Gonsalves (1993) present an early case of a Guatemalan refugee who was repeatedly imprisoned and tortured for political activities. The patient presented with a range of symptoms diagnosable as complex PTSD, which were treated with eclectic short-term psychotherapy. Two sessions of EMDR in the middle of treatment resulted in improved sleep and cessation of nightmares. Bower, Pahl and Bernstein (2004) describe the multimodal treatment of a Bosnian female refugee who suffered from PTSD and depression following detainment and repeated rape in a concentration camp, during which the names of her abusers were tattooed on her body. Psychotropic medication and removal of tattoos led to great decrease of depressive symptoms. Subsequently, five EMDR sessions resulted in diminished nightmares, distressing memories and anxiety. Therapy continued with counseling focused on psychosocial issues. Ilic (2004) illustrates his description of EMDR with former prisoners of war with a case report of a Croatian refugee military veteran who was tortured in a prisoner of war camp. The patient presented with chronic PTSD including nightmares and rumination. After a preparatory phase, three sessions of EMDR resulted in significant reduction of PTSD symptoms, and treatment was continued with psychosocial rehabilitation. Stöfsel (2005) describes a case series of EMDR within a phased approach. With six patients EMDR was successful (meaning that all relevant traumatic memories had been processed and SUD had gone down from 8-10 to 0) - however, two hospitalised patients were unable to manage emotions raised by EMDR and EMDR was terminated. No further details are provided in this case series. Regel and Berliner (2007) describe the case of a Kurdish Iraqi torture survivor who suffered from a multitude of symptoms including PTSD, depression, and social phobia. After stabilisation and graded exposure in vivo, EMDR was implemented to process traumatic memories. After a total of twelve sessions, the patient was acceptant of occasional troubling memories, had a stable mood and sleeping pattern, was regularly employed and active in helping other refugees.

Systematic Review: Method

Although EMDR is being used in clinical practice with refugees, no systematic review yet exists informing therapists and researchers on the state of the evidence for EMDR with refugee populations. We conducted a systematic search for outcome studies of EMDR with asylum seekers and refugees of all ages, treated in

western settings. Our aim was to answer the following questions: Which treatment outcome studies on EMDR with refugees in western settings have been conducted? What are the main findings in terms of dropout and outcome measures? To what extent do those studies meet the gold standards for PTSD treatment outcome studies (i.e. clearly defined target symptoms; reliable and valid measures; use of blind evaluators; assessor training; manualised, replicable, specific treatment programs; unbiased assignment to treatment; and treatment adherence; Foa & Meadows, 1997)? Finally, which conclusions can be drawn on treatment outcome of EMDR with refugees?

In October 2013 we searched PsycINFO, PubMed, PILOTS, the Francine Shapiro Library, and the Journal of EMDR Practice and Research, using the search strategy (EMDR OR "eye movement desensitis/zation") AND (refugee* OR asylum OR displaced OR torture OR persecution). In addition, we sent emails to all national EMDR organisations and to authors of presentation abstracts retrieved in the searches, asking if they knew of or had conducted any studies on EMDR with refugees. This search yielded 110 records. Most records presented clinical reports, recommendations or reflections rather than research. Five studies were found that described study design and method as well as presented statistical data on treatment outcome.

Systematic Review: Results

Groenenberg and Van Waning (2002) conducted a pilot study of EMDR with eight asylum seekers and refugees. As part of regular phased treatment, one to six sessions of EMDR were conducted. One patient dropped out after the second session because of increasing distress. The remaining seven patients showed some decrease in anxiety and depression. As far as the gold standards are concerned, only replicable treatment and reliable, valid outcome measures were used; target symptoms, although clearly defined, did not include PTSD.

Oras, Cancela de Ezpeleta, and Ahmad (2004) studied the effectiveness of EMDR in a psychodynamic context with 13 refugee children (aged 8-16 years) suffering from PTSD. EMDR sessions ranged from one to six. No participants ended treatment prematurely. Treatment resulted in significant improvement in PTSD and Global Assessment of Functioning (GAF) scores. This study adhered only to clear definition of target symptoms, replicable treatment and reliable, valid outcome measures.

Elofsson, Von Schèele, Theorell and Söndergaard (2008) conducted a study of the physiological correlates of EMDR with 13 male resettled refugees. Only changes in *subjective units of distress* (SUD) per session were included as indication of clinical improvement. No dropouts are reported. SUD scores

decreased significantly during the 17 sessions. Treatment was replicable and the physiological outcome measures were clear, reliable and valid. No other gold standards were reported to have been met in this study.

In a pilot study by Renner, Bänninger-Huber and Peltzer (2011), 94 Chechen asylum seekers and refugees were randomly assigned to either 15 sessions of a Culture-Sensitive and Resource Oriented Peer group, 15 CBT group sessions, 3 sessions of EMDR, or waitlist. Of the 17 participants assigned to EMDR, 3 dropped out because of inability to visualise a specific traumatic event. EMDR participants did not improve in PTSD, anxiety or depression. Most gold standards were met, but no clinician-rated assessment requiring blindness and training of evaluators took place and treatment adherence was not measured. In addition, this study suffered from limitations in design (PTSD symptomatology was not an inclusion criterion, treatment dose was not equal for all conditions, and the dose of EMDR that was actually administered was unclear).

Finally, in another randomised pilot study (Ter Heide et al., 2011) 11 sessions of EMDR were compared with 11 sessions of stabilisation in 20 asylum seekers and refugees with chronic PTSD. Drop-out was equal in both conditions, with five participants prematurely ending EMDR because of satisfaction with symptom reduction, not wanting to speak about the past, and withdrawal by their study therapist because of current stress and cultural factors. EMDR participants showed some improvement in PTSD, anxiety and depression. This study met all gold standards of PTSD treatment outcome studies.

EMDR with Refugees: A Research Agenda

Although EMDR is recommended and offered in clinical practice with refugees, research evaluating its acceptability, safety and efficacy has lagged behind. Our systematic review of studies on EMDR with refugees in western settings yielded only five studies: two naturalistic designs of EMDR with adults and children within a phased format, one physiological study into the effectiveness of eye movements, and two pilot randomised trials of unphased EMDR. Full randomised studies providing the highest level of evidence were lacking. None but one of the studies met all gold standards of PTSD outcome research. Consequently, no conclusions on acceptability, safety and efficacy of EMDR with refugees can currently be drawn. If EMDR with refugees is to become evidence-based, research needs to be conducted in all three domains.

Acceptability

It is recommended to study acceptability when examining a new treatment or an existing treatment with a new population (e.g. Lancaster, Dodd, & Williamson, 2004). Acceptability may be defined as refusing treatment or dropping out of treatment because of an insufficient match in treatment rationale between patient and treatment. Three studies (Groenenberg & Van Waning, 2002; Renner et al., 2011; Ter Heide et al., 2011) reported occasional refusals or dropout of EMDR because patients did not want to speak about the past. Although this may be related to treatment quality (such as providing insufficient information about treatment rationale) or study design (directly starting with EMDR without a prior stabilisation phase), findings may also be in line with the argument that processing of traumatic memories may not appeal to some refugees. Questions on the ratio of acceptability versus non-acceptability may be answered by studies using unbiased assignment which keep track of refusals and drop-out. Should EMDR have low acceptability to a subgroup of refugee patients, reasons for refusal may be explored as well as ways to increase acceptability, for example by using culturally specific metaphors to explain the mechanism of EMDR (e.g. Silver & Rogers, 2002).

Safety

Reporting of safety (also called 'harm') of treatments has been encouraged to increase quality of clinical trial reports (Ioannidis et al., 2004). Safety may be specified as an extent of symptom increase or the occurrence of specific adverse effects, such as suicide attempts. Although none of the five studies that came up in our review pointed to unsafety of EMDR, sample sizes were small and full randomised trials are needed to examine if EMDR may lead to adverse effects in a subgroup of patients. Subsequently, treatment predictors may be explored. Are refugees who experience high current stress, such as asylum seekers or illegals, more likely to experience adverse effects than those with relatively low current stress? Is severity of depression or psychotic symptoms a risk factor for adverse effects? Are adverse effects more likely to occur in refugee patients who immediately start with EMDR than in those who receive prior skills training? Data on these issues may aid practitioners in fine-tuning the timing of EMDR.

Efficacy

When studying the efficacy of an intervention, two questions are of interest: is the intervention efficacious, and is it more efficacious than existing treatments. Although all but one study reported EMDR to have some degree of effectiveness or efficacy, high quality randomised trials are needed to reliably determine the efficacy of EMDR with refugees. Because efficacy depends greatly on treatment

33

design, different designs may be used. To determine optimal efficacy of EMDR, EMDR may be studied as sole therapeutic intervention compared to waitlist, within a phased format compared to direct EMDR, or within a multimodal format compared to only EMDR. Number of treatment sessions may be standardised or may be made dependent on treatment efficacy. To determine the size of differences in efficacy between treatments, EMDR may be compared to care as usual or to evidence-based treatments such as NET. The efficacy of EMDR with interpreters also deserves specific attention. Information on efficacy of EMDR in different study designs is essential in helping practitioners choose the intervention as well as outline an order or combination of interventions.

Conclusion

Asylum seekers and refugees form diverse and complex populations, coming from multiple cultural backgrounds, having survived a diversity of life-threatening experiences, living in more or less safe and stable environments. Although EMDR has been found efficacious in adults suffering from PTSD, research findings may not automatically generalise to traumatised refugees. In fine-tuning EMDR to resettled refugees, clinicians may be aided by principles derived from transcultural psychiatry, such as mapping multiple stressors, reaching agreement on treatment focus and rationale, and developing cultural adaptations to the EMDR treatment protocol. In addition, high-quality studies yielding reliable data on the acceptability, safety and efficacy of EMDR with refugees are needed to move EMDR from experience-based practice to evidence-based practice with this population.

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Author Contributions

JJtH, TM, JK and RK designed research; JJtH performed research; JJtH, TM, JK and RK wrote the paper.

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40

Part II
Treatment

Though the single most common therapeutic error is avoidance of the traumatic material, probably the second most common error is premature or precipitate engagement in exploratory work, without sufficient attention to the tasks of establishing safety and securing a therapeutic alliance.

(Judith Herman, "Trauma and Recovery", 1992, p. 172)

Chapter 3

EMDR versus stabilisation in traumatised asylum seekers and refugees:
Results of a pilot study

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Abstract

Background

Traumatised asylum seekers and refugees are clinically considered a complex population. Discussion exists on whether with this population treatment guidelines for PTSD should be followed and TF-CBT or EMDR should be applied, or whether a phased model starting with stabilisation is preferable. Some clinicians fear that trauma-focused interventions may lead to unmanageable distress or may be ineffective. While cognitive-behavioural interventions have been found to be effective with traumatised refugees, no studies concerning the efficacy of EMDR with this population have been conducted as yet.

Objective

In preparation for a randomised trial comparing EMDR and stabilisation with traumatised refugees, a pilot study with 20 participants was conducted. Objective was to examine feasibility of participation in a randomised trial for this complex population, and to examine acceptability and preliminary efficacy of EMDR.

Design

Participants were randomly allocated to 11 sessions of either EMDR or stabilisation. Symptoms of PTSD (SCID-I, HTQ), depression and anxiety (HSCL-25), and quality of life (WHOQOL-BREF) were assessed at pre- and post-treatment and three-month follow-up.

Results

Participation of traumatised refugees in the study was found feasible, although issues associated with complex traumatisation led to a high pre-treatment attrition and challenges in assessments. Acceptability of EMDR was equal to that of stabilisation, with a high drop-out for both conditions. No participants dropped out of the EMDR condition because of unmanageable distress. While improvement for EMDR participants was small, EMDR was found to be no less efficacious than stabilisation. Different symptom courses between the two conditions, with EMDR showing some improvement and stabilisation showing some deterioration between pre-treatment and post-treatment, justify the conduct of a full trial.

Conclusion
With some adaptations in study design, inclusion of a greater sample is justifiable to determine which treatment is more suitable for this complex population.

Introduction

At the end of 2008, there were 16 million asylum seekers and refugees worldwide (UNHCR, 2009). Many refugees are exposed to potentially traumatising situations during several phases of their journey: surviving war or organised violence, including imprisonment and torture; becoming fugitives; leaving their home country, often to stay in refugee camps before being granted a right to stay in a country of settlement; and experiencing the stresses of resettlement and discrimination (Silove, Tarn, Bowles, & Reid, 1991). Consequently, their chances of developing post-traumatic stress disorder (PTSD; American Psychiatric Association, 1994) are high: in western countries, refugees are ten times more likely to have PTSD than general populations (Fazel, Wheeler, & Danesh, 2005). Clinically, traumatised refugees are often regarded as a 'complex' population. This complexity may refer to the nature of their traumatic experiences (e.g. McIvor & Turner, 1995), symptoms of complex PTSD (e.g. Courtois, 2004), and complex social circumstances (e.g. Laban, Gernaat, Komproe, Schreuders, & De Jong, 2004).

A discussion exists concerning the treatment this complexity calls for (e.g. Nickerson, Bryant, Silove, & Steel, 2011). Trauma-Focused Cognitive-Behavioural Therapy (TF-CBT) and Eye Movement Desensitization and Reprocessing (EMDR) are recommended as treatments of choice for PTSD in adults (Bisson et al., 2007). Some clinicians, such as Başoğlu (2006), argue that despite all complexities PTSD treatment guidelines should be followed with traumatised asylum seekers and refugees. Others (e.g. National Institute of Clinical Excellence [NICE], 2005) argue that with this population a phased model may be appropriate, in which treatment initially focuses on the establishment of safety, emotional stabilisation and a trusting relationship. Trauma-focused therapy, at this stage, is considered "inappropriate and ineffective" although "there is no trial evidence to support this contention and it therefore reflects a pragmatic approach" (NICE, p. 120). Some clinicians fear that trauma-focused therapy may lead to unmanageable distress in refugees (Nickerson et al., 2011), especially in asylum seekers. A recent study on psychotherapy with refugees (Kruse, Joksimovic, Cavka, Wöller, & Schmitz, 2009) points out the need for a randomised design in which the efficacy of trauma-focused therapy is compared with the efficacy of stabilisation therapy. While a review of PTSD treatments for asylum seekers and refugees (Crumlish & O'Rourke, 2010) shows evidence for the efficacy of narrative exposure therapy (NET) and TF-CBT, no studies concerning the efficacy of EMDR with this population have been conducted as yet.

In response to this discussion, a randomised trial comparing the efficacy of EMDR and stabilisation with asylum seekers and refugees is currently being conducted at our institute. As refugees are sometimes thought unfit for participation

in such trials (because of insufficient fluency or lack of refugee status; e.g. Paunovic & Öst, 2001), and as no studies on EMDR with this population were available when designing this trial, we conducted a pilot study. Objective of the pilot study was to answer three questions: is participation in a randomised trial feasible for this complex population; is EMDR an acceptable treatment for this population; and which preliminary conclusions can be drawn on efficacy of EMDR with this population?

Method

Setting and Sample

The pilot study was conducted at Foundation Centrum '45, a Dutch centre for the treatment of psychotrauma disturbances resulting from persecution, war and violence. Participants were asylum seekers and refugees[1] of at least 18 years old who had recently been referred for treatment. A sample size of 20 was deemed sufficient to allow a comparison of findings to those of other pilot studies or small efficacy studies with refugees (e.g. Hinton et al., 2004, sample size 12; Paunovic & Öst, 2001, sample size 20). Eligibility was judged during a standard intake interview and a clinical interview consisting of the Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-I) Module PTSD (Dutch version by Van Groenestijn, Akkerhuis, Kupka, Schneider, & Nolen, 1998) and parts of the Mini International Neuropsychiatric Interview (MINI; Dutch version by Overbeek, Schruers, & Griez, 1999). In order to ensure inclusion of a sufficient number of patients within a reasonable time frame, patients were included who met the DSM-IV criteria for PTSD, or who met this diagnosis but for one C-criterion (i.e. patients suffering from so-called "Lowered-Avoidance-Criterion-PTSD"; e.g. Schützwohl & Maercker, 1999). Patients were excluded whose main diagnosis demanded care in another setting or who suffered from serious comorbid depression (with psychotic features and/or high suicidal intent), psychotic disorder, bipolar disorder, substance dependence or eating disorder.

Participants were recruited from March until October 2007. Forty-six patients met inclusion criteria. Of these, 10 were excluded because of substance abuse, high suicidal intent or psychotic disorder. Sixteen patients refused participation: four patients did not want to be treated with EMDR, two patients did not want to be treated with stabilisation, three patients did not want to attend (bi)weekly sessions, and seven patients refused for other reasons (preferring treatment as usual; wanting treatment only by intake therapist; breaking off

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[1]   Refugees have been granted temporary or permanent refugee status in the Netherlands, while asylum seekers are still awaiting a final decision.

contact; not wanting to be interviewed by a research assistant). No significant demographic or clinical differences were found between participants and those refusing participation.

Characteristics for the final sample are described in Table 1.

Table 1

Baseline Demographic and Clinical Characteristics of Intent-to-Treat Sample

Variable	EMDR (*n*=10) *n/M(SD)*	Stabilisation (*n*=10) *n/M(SD)*
Demographic characteristics		
Male	5	7
Age	40 (9.31)	43 (7.93)
Residency status granted	7	10
Duration of stay in the Netherlands in years	10.10 (4.31)	10.30 (3.53)
Married	3	8
No education/primary school only	3	6
Employed	3	3
Clinical characteristics		
Duration of PTSD in years	8.9 (6.77)	6.13 (3.33)
Comorbid depression	8	5

All asylum seekers were randomly assigned to the EMDR condition. Participants originated from Afghanistan (4), Algeria (1), Angola (1), Bosnia (4), Iran (2), Iraq (6), Lebanon (1), and Turkey (1). The average number of kinds of traumatic events experienced by the participants personally (i.e.excluding those events witnessed or heard of, as measured with the Harvard Trauma Questionnaire, Mollica et al., 1996a) was 10 in both conditions. Murder or unnatural death of family or friend (19/20), and physical or psychological torture (14/20) were reported most frequently; rape or sexual abuse were not reported.

Design

A mixed groups experimental design was used with two treatment conditions. Blocking was applied, with blocks of the latest two patients who had satisfied inclusion criteria. Participants were assigned to their experimental group using simple randomisation through flipping a coin: the outcome (EMDR for head, stabilisation for tail) was assigned to the patient lowest in alphabet. An independent research associate performed randomisation.

Interventions

Both treatment conditions consisted of 11 weekly or biweekly sessions. Both started with three preparatory sessions to establish a working alliance, conduct a case conceptualisation and agree on treatment goals. The use of an interpreter and consent to videotaping of sessions were discussed. The explanatory model of the patient was explored and psychoeducation was given on PTSD and the treatment condition.

The EMDR condition continued with a resource development and installation exercise (Korn & Leeds, 2002). The next seven sessions were aimed at reducing disturbance associated with the most troubling traumatic memory, following the Dutch version of the EMDR protocol (De Jongh & Ten Broeke, 2003; Shapiro, 1995). EMDR sessions lasted 90 minutes, 60 of which were dedicated to EMDR *per se*. The EMDR condition was performed by two psychotherapists, one psychiatrist and two health care psychologists. All EMDR therapists were trained at EMDR level II and received monthly supervisions by a registered EMDR-supervisor/trainer.

The EMDR Fidelity Scale (Korn, Zangwill, Lipke, & Smyth, 2001) was used to assess EMDR treatment adherence, ranging from 0 (no adherence) to 3 (adherence very good). Treatment adherence was rated by the EMDR-supervisor after conclusion of the study – with the dual objective of determining treatment adherence for the pilot study and giving recommendations for adherence improvement for the main study. For each participating therapist one EMDR protocol was rated.

Patients in the stabilisation condition continued with eight sessions of stabilisation. A therapist manual was designed containing information on study design and guidelines on therapy content. Pivotal to the stabilisation condition was a focus on the 'here-and-now': exposure to traumatic memory was proscribed. In that sense it was comparable to present-centered therapy used as a control condition by Schnurr et al. (2007), but therapists were more directive. The aim of stabilisation was defined as the establishment of safety in physical, cognitive-behavioural, interpersonal and social areas of functioning, as advocated by Herman (1992). Physical safety refers to the enhancement of physical well-being and diminishing of PTSD-related physical complaints, through interventions aimed at the body (e.g. relaxation exercises or instructions for self-care) and the environment (e.g. resettlement assistance). Cognitive-behavioural safety refers to enhancement of control over cognitive, behavioural and emotional aspects of PTSD, e.g. through attention exercises or sleep hygiene. Interpersonal safety refers to the ability to bond with others, including the therapist, e.g. through discussing cognitions on therapeutic trust. Social safety refers to the ability to use

social support and social institutions, e.g. through applying for a permission to work. In order to increase generalisability of the study findings, therapists were asked to conduct 'stabilisation as usual', selecting stabilisation interventions from therapeutic orientations they were most familiar with, and which they deemed most appropriate to their patient's therapeutic goals. Sessions lasted 60 minutes, and were conducted under monthly supervision by a registered cognitive-behavioural and family therapy supervisor/trainer with a specialisation in trauma therapy. The stabilisation condition was performed by one clinical psychologist, one physician/psychotherapist, one physician and two social-psychiatric nurses.

In order to systematically assess therapy content, a 'stabilisation menu' (Meichenbaum, 1985) was provided in which possible interventions were listed, derived from authors such as Herman (1992), Linehan (1993), Meichenbaum (1985) and Van der Hart (1999). Therapists were asked to tick off applied interventions after each session. A stabilisation fidelity scale was designed containing items on session goals, content of interventions, proscription of trauma exposure interventions, session length and frequency, medication and working alliance (in line with recommendations by Barber, Triffleman, & Marmar, 2007). The scale ranged from 0 (no adherence) to 10 (excellent adherence). Treatment adherence was rated by the stabilisation supervisor after conclusion of the study, for the same reasons as using the EMDR supervisor in determining EMDR treatment fidelity. For each participating therapist one therapy was rated.

A medication protocol was used. Patients were required to have been on a stable dose for at least two months before their pre-treatment assessment. In accordance with clinical guidelines for the treatment of PTSD (NICE, 2005), no medication was prescribed for participants during the study unless they developed serious depressive symptoms. Medication already used at intake was maintained until the post-treatment assessment. Psychotropic medication was used by eight participants in the EMDR condition and nine participants in the stabilisation condition.

Therapists in both conditions were experienced clinicians who had worked with traumatised asylum seekers and refugees for an average of 16.5 years. All participants received care as usual after the post-treatment assessment.

Measures
The Mini International Neuropsychiatric Interview (MINI; Sheehan et al., 1998) is a structured clinician-rated interview to screen for DSM-IV axis-I disorders. Despite its short and simple design, it has been found to be highly sensitive and highly specific (Sheehan et al.). In this study, only those parts of the MINI were used that concerned exclusion criteria: depression with psychotic features or high

suicidal intent, bipolar disorder, alcohol and drug dependence, psychotic disorder, and anorexia and bulimia nervosa.

All other instruments were applied at pre-treatment (T1), post-treatment (T2) and three-month follow-up (T3). The primary outcome measure consisted of PTSD symptomatology as measured by the SCID-I (Van Groenestijn et al., 1998) and the Harvard Trauma Questionnaire (HTQ; Mollica et al., 1996a). Secondary outcome measures consisted of symptoms of anxiety and depression according to the Hopkins Symptom Checklist (HSCL-25; Mollica et al., 1996b), and quality of life as measured by the World Health Organization Quality of Life questionnaire (WHOQOL-BREF; WHOQOL Group, 1998).

The SCID-I module PTSD is a clinician-rated interview with good psychometric qualities (Lobbestael, Leurgans, & Arntz, 2010; Zanarini et al., 2000), used to determine presence and severity of a DSM-IV PTSD diagnosis. In this study, B-, C- and D-criteria for PTSD rated as present were added to form a continuous variable with a range from 0 to 17. The interview was administered in Dutch by trained, blind assessors – interpreters were used when necessary. Interrater reliability was 100% on PTSD diagnosis and 92% on individual items. Blindness was maintained in 33 out of 44 assessments (70%).

The HTQ, HSCL-25 and WHOQOL-BREF are self-report questionnaires that are widely used with this population and are available in many different languages. All three have good psychometric properties (for the HTQ and the HSCL-25, see Hollifield et al., 2002; for the WHOQOL-BREF, see Skevington, Lotfy, & O'Connell, 2004, and WHOQOL Group, 1998). Questionnaires were administered in the patient's native language if possible; interpreters were used when necessary. The HTQ consists of three parts: one on traumatic events, one on DSM-IV trauma symptoms, and one on other trauma symptoms. Scores for the symptom parts range from 1 (*not at all*) to 4 (*extremely*). DSM-IV symptoms and other symptoms are added to yield a total score. A cut-off score of 2.45 is used to indicate likelihood of PTSD. The HSCL-25 consists of two parts: one on anxiety and one on depression. Scores range from 1 (*not at all*) to 4 (*extremely*). A cut-off score of 1.75 is used to indicate likelihood of a clinical diagnosis. The WHOQOL-BREF measures four domains of quality of life: physical, psychological, social and environment. Scores range from 1 to 5, with different meanings attached to scores for different domains.

At T2 and T3 the participants were given a small present in appreciation of their time and effort.

Data Analysis

Statistical analyses were performed with SPSS 18.0 for Windows. Kolmogorov-Smirnov tests were used to examine normality of distribution for continuous demographic and clinical variables at baseline; consequently, independent samples T-tests were used to check for differences at baseline between participants and those who refused participation (selection bias), and between drop-outs and completers. Sample size was too small to use χ^2 tests for categorical variables.

Because of the small sample size, GLM Repeated Measures rather than a more sophisticated method of analysis was selected to test the effect of intervention. The assumptions of sphericity and equality of variance were checked using Mauchly's test and Levene's test respectively. When the assumption of sphericity was violated, Greenhouse-Geisser corrections were administered.

Results

Assessments

Assessments were challenging to most participants. Linguistic difficulties resulted in eight participants needing an interpreter during assessments and three needing extensive help with filling in the questionnaires. Seven participants experienced physical pain during assessments and had to take frequent breaks or asked to sit on the floor. Seven participants were emotionally upset resulting in crying, anxiety and dissociation. Two participants felt embarrassed by questions on sexual functioning (WHOQOL-BREF). Two participants were unable to organise transportation and had to be assessed outside of the institute.

Treatment Adherence

Interpreters were used in therapy sessions with six patients (three in each condition). Seven participants (35%) refused to have their treatment sessions video- or audiotaped, despite explanations by their therapists about confidentiality and the offer to film only the therapist and not the participant. Reasons given for refusal mainly pertained to worries about the breaching of confidentiality.

EMDR treatment adherence as rated by the EMDR Fidelity Scale was adequate (*M*=2.22; *SD*=.46). Stabilisation treatment adherence as rated by the stabilisation fidelity scale designed for this study, was also adequate (*M*=8.14*; SD*=.81). A focus on cognitive-behavioural functioning and social functioning was most frequently chosen. Interventions most frequently reported were psychoeducation, exploration of troubling cognitions and behaviour, and relaxation exercises.

Drop-Out

In both conditions, five patients dropped out of the study (50%). In the EMDR condition, one patient dropped out because of satisfaction with symptom reduction (after a total of four sessions) and one patient did not want to speak about the past (four sessions). One therapist considered EMDR unsuitable for all three patients assigned to her because of current stress and cultural factors (all drop-outs during the preparatory sessions). Amongst the drop-outs was one asylum seeker. In the stabilisation condition, two patients dropped out because of satisfaction with symptom reduction (three and eight sessions), one because of dissatisfaction with symptom reduction (eight sessions), one because of increase of symptoms (one session), and one patient missed too many therapy sessions (four sessions). No significant demographic or clinical differences were found between drop-outs and completers.

Statistical Outcomes

Table 2 presents the outcomes per participant for the intent-to-treat sample. Attempts to assess drop-outs failed with four EMDR participants and two stabilisation participants. Of those for whom all assessments were available, three out of five participants in the EMDR condition lost their PTSD diagnosis, versus no (out of eight) participants in the stabilisation condition. Because of the substantial number of missing assessments, Table 3 shows completers' analyses only of outcome measures for continuous variables at T1, T2 and T3.

   Primary outcomes. Primary outcome measure was PTSD psychopathology as rated by the SCID and the HTQ. No significant change in symptomatology occurred in either condition. Changes in symptomatology were however significantly different between the two conditions both on HTQ DSM-IV items and on total HTQ items. Figure 1 shows the course in symptoms for both conditions on HTQ DSM-IV items, with EMDR participants showing some improvement and stabilisation participants showing some deterioration between T1 and T2.

Symptom decline in the EMDR condition did not reach below the cut-off score of 2.45 for PTSD. Interaction between treatment and time explained variance to a large extent[1] (Cohen, 1988).

   Secondary outcomes. On secondary outcomes also, changes in symptomatology failed to reach significance in either condition. Changes did differ significantly between the two conditions with regard to HSCL-25 anxiety items and depression items, and with regard to social aspects of quality of life

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[1] Cohen (1988) suggests the following interpretation of partial eta squared: .01 small, .09 medium and .25 large.

53

Table 2
Outcomes per Participant

| | | EMDR | | | | | | | | | | Stabilisation | | | | | | | | | |
| | | Completers | | | | | Drop-Out | | | | | Completers | | | | | Drop-Out | | | | |
Variable	Time	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P19	P20
PTSD diagnosis	T1	PTSD	PTSD	PTSD	PTSD	PTSD	PTSD	PTSD	PTSD	LAC	LAC	PTSD	LAC	PTSD	PTSD	PTSD	LAC	PTSD	PTSD	LAC	PTSD
	T2	No	PTSD	PTSD	PTSD	PTSD						PTSD	LAC	PTSD	PTSD	PTSD		LAC	PTSD		PTSD
	T3	No	PTSD	No	PTSD	no					PTSD	PTSD	PTSD	PTSD	PTSD	PTSD		PTSD	PTSD		PTSD
SCID-I positive items	T1	11	13	11	14	15	14	12	14	10	9	16	11	12	15	14	10	12	15	9	13
	T2	3	13	10	14	14						14	10	15	15	11		9	15		15
	T3	0	15	5	16	11					14	15	11	15	15	13		9	17		15
HTQ DSM-IV	T1	2.9	3.1	2.3	3.1	3.6	3.2	3.2	3.2	2.6	2.5	2.7	2.4	3.1	2.9	2.6	1.7	2.7	3.6	2.6	3.1
	T2	1.9	2.8	2.0	3.3	2.7						3.1	3.0	2.9	2.8	3.4		2.6	3.3		3.3
	T3	1.7	3.1	1.9	3.5	2.5					2.8	3.1	3.0	3.4	2.9	3.5		2.1	3.8		3.5
HTQ total	T1	3.0	2.8	2.4	2.9	3.2	3.0	2.8	3.4	2.2	2.2	2.5	2.2	2.4	2.5	2.2	1.4	2.3	3.3	2.2	3.1
	T2	1.9	2.6	1.8	3.2	2.4						2.5	2.7	3.1	2.3	3.0		2.3	3.0		3.5
	T3	1.6	2.9	2.0	3.2	2.4					2.4	2.8	2.5	3.5	2.6	2.8		2.3	3.2		3.3

LAC = Lowered Avoidance Criterion PTSD

Table 3

Analysis of Variance for Completers

Variable	Time	EMDR (n=5)		Stabilisation (n=5)		Interaction effect	
		M	*SD*	*M*	*SD*	*F*(2, 36)	Effect size[a]
SCID-I positive items	T1	12.80	1.79	13.60	2.07	1.61	0.17
	T2	10.80	4.66	13.00	2.35		
	T3	9.40	6.80	13.80	1.79		
HTQ DSM-IV	T1	3.01	0.47	2.74	0.27	5.92*	0.42
	T2	2.54	0.56	3.04	0.25		
	T3	2.55	0.77	3.16	0.26		
HTQ total	T1	2.85	0.32	2.36	0.16	5.99*	0.43
	T2	2.37	0.58	2.71	0.32		
	T3	2.43	0.65	2.85	0.38		
HSCL anxiety	T1	2.92	0.66	2.76	0.23	4.68*	0.36
	T2	2.50	1.00	3.02	0.52		
	T3	2.44	0.88	3.18	0.33		
HSCL depression	T1	3.04	0.38	2.80	0.16	3.67*	0.32
	T2	2.47	0.66	3.04	0.43		
	T3	2.71	0.79	2.80	0.22		
WHOQOL physical	T1	2.60	0.84	2.37	0.54	1.50	0.16
	T2	2.80	0.51	2.20	0.37		
	T3	2.71	0.48	1.97	0.26		
WHOQOL psychological	T1	2.13	0.48	2.23	0.45	1.39	0.15
	T2	2.37	0.48	2.13	0.66		
	T3	2.23	0.61	1.80	0.46		
WHOQOL social	T1	2.40	0.86	3.07	0.49	9.55**	0.54
	T2	2.87	0.90	2.33	0.53		
	T3	2.60	0.89	2.23	0.57		
WHOQOL environment	T1	2.73	1.03	3.13	0.54	1.16	0.13
	T2	3.05	0.60	3.08	0.47		
	T3	2.90	0.81	2.90	0.61		
WHOQOL general	T1	2.50	0.79	1.60	0.65	0.09	0.01
	T2	2.50	0.94	1.70	0.45		
	T3	2.20	0.91	1.40	0.55		

* *p*<=.05
** *p*<=.001
[a] Partial Eta Squared

(WHOQOL-BREF; a higher score meaning a higher quality of life). Again, EMDR participants showed some improvement and stabilisation participants showed some deterioration between T1 and T2, and the amount of variance explained was large.

Discussion

Traumatised asylum seekers and refugees are clinically considered a complex population. Discussion exists on whether with this population, treatment guidelines for PTSD should be followed and TF-CBT or EMDR should be applied, or whether a phased model should be followed starting with stabilisation. In a
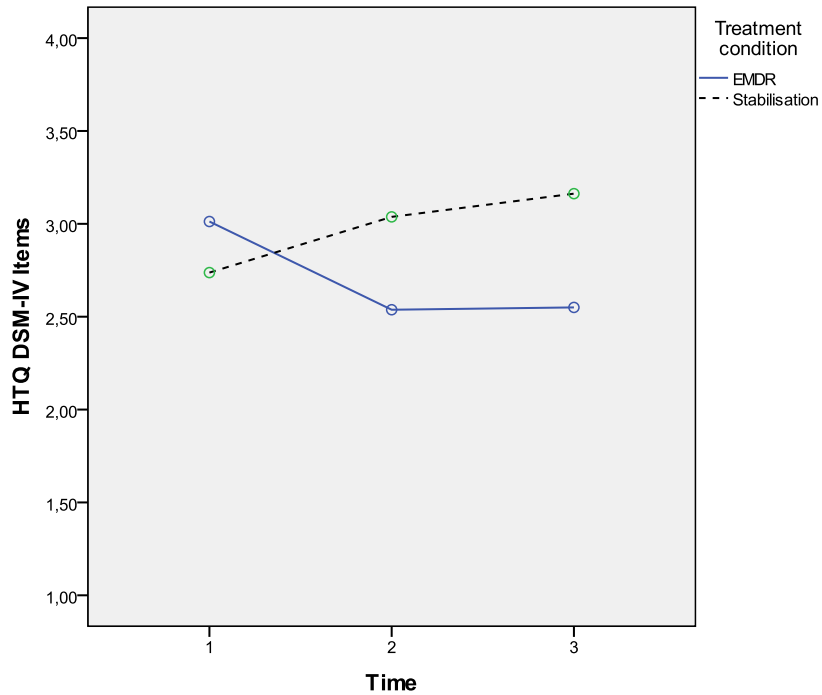
Figure1: *Estimated Marginal Means of HTQ DSM-IV*

pilot study with 20 traumatised asylum seekers and refugees, the feasibility of conducting a randomised trial with this population, acceptability of EMDR to the participants and preliminary efficacy of EMDR were examined.

Feasibility

Feasibility of the study was supported by the study setting, which provided highly experienced therapists for both conditions and allowed for the random allocation of participants to their treatment conditions (unlike for example the study by Kruse et al., 2009). A representative population of participants was included, including participants without a refugee status and participants needing interpreters (unlike the studies by Paunovic & Öst, 2001, and Kruse et al.).

Feasibility was influenced by issues related to the complexity of the study population. Pretreatment attrition was 57%: 35% of eligible participants refused participation and 22% met exclusion criteria. This number is considerably higher than pretreatment attrition rates of 35-37% mentioned in a review on PTSD treatment studies by Spinazzola, Blaustein and Van der Kolk (2005). In their study with traumatised refugees, Paunovic and Öst report a pretreatment attrition of

14 out of 34 clients (41.2%) who were referred from other psychiatric units for participation: seven (22%) seemingly because of patient refusal; seven (22%) for not meeting inclusion criteria and/or meeting exclusion criteria. The higher refusal rate encountered in the present study might be accounted for by the fact that participants were recruited upon intake in the institute rather than being referred especially for study participation. Both the Paunovic and Öst study and the present study suggest that low therapeutic trust may limit the feasibility of participating in a clinical trial for traumatised asylum seekers and refugees. Examples of reasons given for refusal were that the patient is reminded of a torture setting by the interview (Paunovic and Öst) and the patient wants treatment only by intake therapist (present study). This finding is in line with Herman's (1992) theory on complex PTSD which states that in complexly traumatised patients, therapeutic trust should be developed rather than assumed to exist at the outset of treatment.

Thirty-five percent of participants refused to have their treatment sessions video- or audiotaped. Compared to other experiences with PTSD efficacy studies, this percentage can be considered high (Jacques Barber, personal communication). In line with the complex PTSD criterion of 'inability to trust' (Van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005), reasons given for refusal mainly pertained to worries about the breaching of confidentiality. This finding may structurally limit the feasibility of videotaping of study sessions with traumatised asylum seekers and refugees, and thus complicate the rating of treatment fidelity with this population. In the main study, the protocol has been adapted and research associates rather than study therapists will ask for taping permission, as they might be better able to explain the importance of taping and precautions taken to ensure confidentiality.

Assessments were challenging to most participants due to language difficulties, physical pain, emotional distress, and embarrassment by questions on sexuality. Research on the HTQ, HSCL-25 and WHOQOL-BREF has mainly focused on reliability and validity of these measures (e.g. Hollifield et al., 2002), rather than on the feasibility of using them with populations who may have little schooling and limited literacy. In the present study, participants were aided with filling in the questionnaires by using symbols such as smilies to help them understand response options. The physical pain observed during assessments may be perceived as part of complex trauma symptomatology. Pain and somatic complaints are frequently reported by refugees, especially survivors of torture (e.g. Turner & Gorst-Unsworth, 1990). The emotional distress observed in some participants seems to be higher than that reported in studies with other traumatised populations (Carter-Visscher, Naugle, Bell, & Suvak, 2007) and several participants needed encouragement to finish their assessments and attend future assessments.

Finally, the embarrassment caused by questions about sexuality may be culture-specific and enhanced by the presence of interpreters. Embarrassment or distrust may have potentially led participants to not report rape or sexual abuse on the HTQ (e.g. Tankink & Richters, 2007). The many difficulties encountered during assessments suggest that psychological assessments with this population should be limited in time and be performed with cultural sensitivity and with minimal reference to traumatic memories and complaints. This leaves room for only a limited number of measurements (e.g. five in our main study versus eleven in a study with traumatised veterans by Schnurr, Friedman, Lavori, & Hsieh, 2001, in which participant burden was carefully taken into account).

Acceptability

In this study, a treatment intervention was considered unacceptable if it lead to either refusal to participate or to drop-out. Acceptability of treatment interventions was equal across conditions. Both EMDR and stabilisation were deemed undesirable treatments to some patients, leading to refusal to participate. Drop-out in both conditions was equally high, suggesting that neither of the two conditions was more acceptable to the participants than the other. No participants dropped out of the EMDR condition because of high levels of psychological distress, nor did asylum seekers have a higher chance of dropping out from the EMDR condition than refugees.

The acceptability of staying in treatment as agreed was rather low, considering the high drop-out that occurred in both conditions (50%). While this rate is 3.5 times higher than rates recorded in efficacy research for psychological therapies for PTSD, it is comparable to treatment studies for PTSD with comorbid disorders (37-62%; Spinazzola et al., 2005) – suggesting that the complexity of the clinical picture may have led to a higher drop-out. However, the drop-out rate was also higher than in comparable studies (i.e. PTSD efficacy studies with refugees in western psychiatric settings) by Paunovic and Öst (2001; drop-out 20%) and Hinton et al. (2004, 2005; drop-out 0%). Study design and setting may have been of influence here. In the present study participants were assured of receiving care as usual at the institute after drop-out. In the Paunovic and Öst study however, drop-out of the study meant dropping out of psychotherapy at their institute, perhaps resulting in a greater dedication to the treatment condition. Low drop-out rates in the Hinton studies may be accounted for by the fact that all participants were already in long-term treatment at the centre at which the studies were conducted and already had strong treatment alliances there.

Acceptability of EMDR to therapists rather than participants may also have influenced drop-out. Deighton, Gurris and Traue (2007) mention six hindrances

to working through trauma with torture survivors: client's reservations, client's symptoms, and therapeutic relationship on the one hand, and therapist's insecurity, fear of hurting the client, and unfavourable conditions on the other hand. The fact that one therapist thought EMDR unfit for all three patients assigned to her suggests that a therapist factor may have been of influence. The discussion on the advisability of working through traumatic experiences with traumatised asylum seekers and refugees, as described in the introduction, may make it harder for therapists to stick to the study protocol. Safeguarding therapists' support of the study protocol should be able to bring drop-out down in the main study.

Preliminary efficacy

With the small sample size characteristic for a pilot study, statistical outcomes should be treated as preliminary and interpreted with caution (Lancaster, Dodd, & Williamson, 2004). The contention that EMDR might be ineffective in comparison with stabilisation was not confirmed, neither was the fear that EMDR might lead to unmanageable distress. Three out of five EMDR completers lost their PTSD diagnosis versus no stabilisation completers. Neither EMDR nor stabilisation completers showed significant change in symptomatology on any continuous outcome measure. Differences in symptom change were however found between the two conditions on self-reported trauma symptoms, anxiety and depression, and social aspects of quality of life, with EMDR showing some improvement and stabilisation showing some deterioration between T1 and T2. Improvement shown by EMDR completers was small in comparison to EMDR with other populations (Bisson et al., 2007) and in comparison to other trauma-focused interventions with traumatised refugees (Nickerson et al., 2011). Differences found between the two conditions justify the conduct of a full efficacy trial.

Examination and interpretation of preliminary efficacy is limited in several ways. First, a high percentage of drop-outs and a substantial number of missing assessments reduced information on treatment efficacy. In the main study, every attempt is made to bring down drop-out and follow up early terminators. Second, in this pilot study we chose to statistically analyse only completers' results. Intent-to-treat analysis with imputation of missing data might have provided different results. Third, blindness was maintained only in 70% of SCID-interviews, thus threatening the reliability of clinician-rated outcomes. In the main study an effort is made to maintain assessor blindness by involving more research associates. Fourth, differences in session length (90 minutes in EMDR versus 60 minutes in stabilisation) further hinder conclusions on efficacy. While these differences in session length make sense clinically, in the main study treatment contact is of equal duration to allow for a comparison of efficacy based on treatment content only.

Conclusion

This pilot study is the first randomised controlled study to examine EMDR with traumatised asylum seekers and refugees. Clinically, a comparison between EMDR and stabilisation is highly relevant. Many centres for refugee care, at least in the Netherlands, are hesitant to offer EMDR but do offer eclectic forms of stabilisation whose efficacy has not been proved.

In this pilot study, participation of traumatised refugees, including those who lack refugee status and who need an interpreter, turned out to be feasible although more complicated than with other traumatised populations. The suggestion that EMDR with traumatised asylum seekers might be inappropriate or ineffective or might lead to unmanageable distress, was not confirmed. EMDR did not lead to higher pretreatment attrition or drop-out than stabilisation, nor did EMDR prove any less efficacious. In conclusion, incorporating the improvements suggested above, it is feasible and justifiable to conduct a larger study with a similar design to more conclusively address the question of treatment efficacy.

Author Contributions

JJtH, TM, AdJ and RK designed research; JJtH performed research; JJtH, TM and WK analysed data; JJtH, TM, WK, AdJ and RK wrote the paper.

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Chapter 4
Eye movement desensitisation and reprocessing therapy v. stabilisation as usual with refugees: Randomised controlled trial

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Abstract

Background
Eye movement desensitisation and reprocessing (EMDR) therapy is a first-line treatment for adults suffering from post-traumatic stress disorder (PTSD). Some clinicians argue that with refugees, directly targeting traumatic memories through EMDR may be harmful or ineffective.

Aims
To determine the safety and efficacy of EMDR in adult refugees suffering from PTSD (trial registration: ISRCTN20310201).

Method
Seventy-two refugees referred for specialised treatment were randomly assigned to 12 hours (9 sessions) of EMDR or 12 hours (12 sessions) of stabilisation, and blindly assessed. The Clinician-administered PTSD Scale (CAPS) and Harvard Trauma Questionnaire (HTQ) were primary outcome measures.

Results
Intention-to-treat analyses found no differences in safety (one severe adverse event in the stabilisation condition only) or efficacy (effect sizes CAPS -0.04 and HTQ 0.20) between the two conditions.

Conclusions
Directly targeting traumatic memories through 12 hours of EMDR in refugee patients needing specialised treatment is safe, but only limitedly efficacious.

Declaration of interest
A.d.J. reports receiving personal fees from teaching activities and from books about trauma and its treatment (including EMDR). He is a board member of the Dutch EMDR Association and the EMDR Europe Association.

Introduction

Experiences of war and organised violence in combination with post-migration stressors[1] leave asylum seekers and refugees in western countries at relatively high risk of developing post-traumatic stress disorder (PTSD[2]).[3] PTSD in adult refugees has been shown to pose a burden not only for individuals and their families,[4] but also for communities at large.[5] Psychological treatment of refugees suffering from chronic PTSD, although imperative, is a great clinical challenge.[6] According to evidence-based guidelines for the treatment of adults with chronic PTSD, trauma-focused cognitive-behavioural therapy (TFCBT) and eye movement desensitisation and reprocessing (EMDR) therapy should be offered to all patients with this disorder.[7,8] With refugee patients the experience-based recommendation is often made that trauma-focused treatment should be preceded or even replaced by stabilisation.[7,9] Trauma-focused therapy *per se*, especially for refugees living in unstable conditions, has been suggested to cause unmanageable distress[10] and to be inappropriate and ineffective.[7] Nevertheless, systematic reviews of the psychological treatment of refugees have shown TFCBT and narrative exposure therapy (NET) to be safe and efficacious with refugees in various social conditions.[10,11,12] However, no full, high-quality randomised trials of EMDR therapy with refugees have yet been conducted. To determine the safety and efficacy of EMDR therapy in traumatised refugees, we designed a trial in which adult asylum seekers and refugees suffering from chronic PTSD were randomly assigned to either EMDR therapy or stabilisation. In line with a pilot study[13] and evidence-based guidelines, our first hypothesis was that EMDR therapy would not differ from stabilisation in the occurrence of harms (defined as symptom increase and drop-out related to symptom increase). Our second hypothesis was that EMDR therapy would be more efficacious than stabilisation in reducing trauma-related symptoms (PTSD, anxiety and depression) and increasing quality of life.

Method

The trial was performed at Foundation Centrum '45, a highly specialised Dutch centre for diagnostics and treatment of psychotrauma resulting from persecution, war and violence. Centrum '45 receives national referrals of patients considered too complex to be treated in their own municipalities. Participants were enrolled at two out-patient teams for refugees (in the towns of Oegstgeest and Diemen). Patients judged eligible for participation were asked by their intake therapists if they wished to receive any information about the study and, upon consent, were informed about the study by a research associate. Both treatments were presented as aimed at diminishing PTSD symptoms: EMDR through desensitisation of traumatic memories, stabilisation through enhancement of coping with PTSD

symptoms and stressful circumstances in the here-and-now. Those willing to participate signed an informed consent form and were then interviewed with the MINI International Neuropsychiatric Interview[14] to formally check inclusion and exclusion criteria. Data collection took place from September 2009 until August 2012. The trial was approved by the medical-ethics committee of the University of Leiden. Trial registration: NARCIS (Dutch National Academic Research and Collaborations Information System) OND1324839; ISRCTN20310201.

Study Entry Criteria

Refugees who applied for treatment at Centrum '45 were eligible for participation if they were at least 18 years of age, met the criteria for a PTSD diagnosis according to the DSM-IV-TR,[2] and asked for individual therapy to diminish their PTSD symptoms. Patients who had at some point claimed asylum in the Netherlands – irrespective of whether their claim had been met or rejected or was still under consideration - were defined as 'refugee'. Patients were excluded if they had disorders that acutely threatened their mental or physical health (i.e. depression with high suicidal intent or psychotic features, psychotic disorder, bipolar disorder, and severe self-harm or eating disorders) or that interfered with their ability to participate (i.e. alcohol or substance dependence and cognitive disorders). No restrictions were placed on either refugee status or language proficiency. No other psychotherapeutic treatment could take place during the study, and psychotropic medication had to be kept stable from two months before treatment until the post-treatment assessment. For those participants who developed high suicidal intent, a psychotic disorder or another serious psychiatric disorder during the study, a psychiatric consultation was prescribed during which the necessity of prescribing or changing psychotropic medication (using a medication protocol) and of discontinuation of the intervention were to be evaluated.

Trial Design

A two-arm design was used in which participants were randomly assigned to either 12 hours (9 sessions) of EMDR therapy or 12 hours (12 sessions) of stabilisation as usual. In order to create maximum ecological validity, the recommended session length of EMDR and stabilisation was preserved,[7] and conditions were equated on number of treatment hours rather than number of sessions. Twelve treatment hours is considered a minimum to reach improvement in multiply traumatised patients.[7]

Blocked, simple randomisation was conducted with the latest two participants who had satisfied the inclusion criteria at the same study site forming a block. Participants were assigned to their experimental group through flipping a

coin: the outcome (EMDR therapy for heads, stabilisation for tails) was assigned to the participant lowest in the alphabet. An independent research associate who was not otherwise involved in the inclusion process performed randomisation. As both the EMDR condition and the stabilisation condition contained active treatment elements, the design was complemented with a naturalistic waitlist condition to control for time (see Box 1). Primary outcome measures consisted of the change in PTSD symptom severity and diagnosis, both clinician-rated (Clinician-Administered PTSD Scale or CAPS)[15] and self-administered (Harvard Trauma Questionnaire or HTQ).[16] Secondary outcome measures were changes in anxiety and depression (Hopkins Symptom Checklist or HSCL-25)[17] and quality of life (World Health Organization Quality of Life Assessment or WHOQOL-BREF).[18] Harms were defined as an increase in PTSD symptoms of at least 10 points on the CAPS[19] and premature termination of the study treatment because of symptom increase. All instruments were administered before treatment (T1), two weeks post-treatment (T2) and at a three-months follow-up (T3). After T2, participants converted to care as usual.

Interventions

EMDR therapy is a trauma-focused treatment that consists of several steps including treatment planning, preparing the patient for trauma-focused treatment, desensitisation and reprocessing, and evaluation. During desensitisation and reprocessing (which is considered the main active element) a focus on a traumatic image and the thoughts, sensations, feelings and memories that it elicits, is combined with an attention-demanding task such as tracking the therapist's fingers with the eyes.[20] The EMDR condition started with three 60 min sessions dedicated to treatment planning and preparation (including discussing study course and use of interpreters, discussing the patient's explanatory model and subsequently providing psycho-education on PTSD and EMDR, and making a timeline of traumatic experiences and symptoms). Traumatic memories that were expected to lead to the greatest remission of PTSD symptoms were selected for desensitisation. The preparatory sessions were followed by six 90 min desensitisation sessions, using the Dutch version of the EMDR protocol.[21] Stabilising interventions were proscribed. The EMDR condition was performed by seven clinical psychologists, one physician/psychotherapist, and two psychotherapists. Only therapists who had earlier in their career completed an accredited advanced EMDR course participated. Their average experience in EMDR therapy was 5.3 years (s.d. = 2.9). They received monthly supervision by a licensed EMDR supervisor.

The stabilisation condition consisted of twelve 60 min sessions of stabilisation as usual. In phase-oriented treatment for PTSD, the first phase or

stabilisation phase is aimed at enhancing safety, control over symptoms and social-psychological competencies through interventions such as emotion regulation and relational skills building, stress management and cognitive restructuring; processing of traumatic memories is left till the second phase.[9] Stabilisation as usual, rather than a structured form of stabilisation, was chosen as a control condition to reflect the regular non-structured stabilisation offered in European mental health care centres for refugees.[22,23] Therapists were asked to select stabilising interventions to match their patient's needs. Exposure to traumatic memories was proscribed. Stabilisation was performed by three clinical psychologists, five psychotherapists, one physician/systemic therapist, one psychiatrist, one social-psychiatric nurse, two psychiatrists in training and one psychotherapist in training. Those therapists participated who regularly conducted stabilising interventions in their usual care. Their mean number of years of experience in working with traumatised refugees was 9.9 (s.d. = 5.5) which did not differ from EMDR therapists' experience (M = 9.00; s.d. = 5.5; $t(22)$ = -0.41, P = 0.75). Stabilisation therapists received monthly supervision from a registered cognitive-behavioural and family therapy supervisor/trainer with a specialisation in trauma therapy.

For both conditions, therapist manuals were designed with information on the study methods (such as study design and rules for drop-out), study treatment (such as pre- and proscribed elements), the medication protocol, and camera use (manuals available upon request). In order to assess treatment integrity, treatment sessions were videotaped. For the EMDR condition, a detailed treatment fidelity scale was put together consisting of the scale used in a recent Dutch EMDR trial[24] and additional prescribed, proscribed, and non-specific elements. For the stabilisation condition, a brief treatment fidelity scale was designed containing prescribed, proscribed and non-specific elements. All interventions were delivered in Dutch when possible and translated by registered interpreters (physically present or by telephone) when necessary.

Measures

PTSD severity and diagnosis were measured by the CAPS and the HTQ. The CAPS yields frequency and intensity scores (ranging from 0 to 4) for all PTSD symptoms according to the DSM-IV-TR in the past week. A symptom was considered present if its frequency was rated as at least 1 and its intensity as at least 2.[25] In order to capture full PTSD severity, interviewers referred to clusters of war or persecution experiences rather than to one index traumatic event. The HTQ consists of three parts: one on traumatic events, one on DSM-IV trauma symptoms, and one on other trauma symptoms. Scores for the symptom parts range from 1 (not at all) to 4 (extremely). Anxiety and depression were measured using the HSCL-25,

which uses the same scale. Quality of life was measured by the WHOQOL-BREF, which measures four domains of quality of life (physical, psychological, social relationships, and environment) on a scale of 1 to 5 (a higher score indicating a higher quality of life). All of these instruments have good psychometric properties and are widely used in transcultural research.[26-29]

Interpreters were used whenever the participant did not speak Dutch and the instrument was not available in the participant's native language. To maximise participant understanding of the questionnaires while minimising dependency on individual interpreters' skills, where possible we used questionnaires in the participant's native language which had been carefully translated by our institute (HTQ, HSCL)[30] or by the WHOQOL Group (WHOQOL-BREF).[18] Interviews were administered by trained Master's students in psychology who were kept blind to treatment condition by having limited access to participant data and by asking participants not to reveal treatment content. They received monthly supervisions of their CAPS ratings using videotaped interviews. Participants received a gift coupon at T2 and a box of chocolates at T3.

Statistical Analysis

Sample size was calculated with the power analysis program G*Power version 2 for Windows (Erdfelder, Faul, and Buchner at the University of Trier, Germany; see http://www.psycho.uni-duesseldorf.de/aap/projects/gpower/). Power calculations were based on outcomes of our pilot study, which resulted in a medium effect size between EMDR and stabilisation on the HTQ.[13] For the main study, a sample size of 36 patients per condition was needed (using a power of 0.80, a two-sided significance level of 0.05 and three repeated measures) to detect a medium between-treatment effect size at T3. In response to reviews of our pilot study, in the final analyses we used a statistically more advanced variation of the planned analysis strategy (Bayesian latent growth modelling instead of repeated measures analysis), which the sample size allowed for.[31]

Treatment fidelity, interrater reliability and demographic and clinical variables were analysed with SPSS version 20.0 for Windows. Chi-square and t-tests were conducted to check for demographical and clinical differences between participants and those who refused to participate as well as between the two treatment conditions. Mean scale and subscale scores were computed, allowing for a maximum number of three missing values in the HTQ and HSCL and following the questionnaire manual rules for missing values for the WHOQOL-BREF. Chi-square tests (for treatment condition, gender, refugee status, drop-out, use of an interpreter, and work status) and t-tests (for age, distance from home to treatment centre, and CAPS score at baseline) were conducted to explore relationships

between missing values and demographic and clinical variables.

Data were then converted to Mplus version 7 (Muthén and Muthén at University of California; see http://www.statmodel.com/demo/shtml). Bayesian estimation was used in all analyses with the default settings in Mplus with regard to prior specifications.[32] Bayesian analysis enables full intent-to-treat analysis as missing data are automatically imputed. For the burn-in and convergence criteria we used a minimum of 20,000 iterations after which the Gelman-Rubin convergence criterion[32] was used to monitor convergence with a cut-off value of 0.01. Additionally, to ensure convergence was reached, we checked the trace-plots manually. In Bayesian statistics, credibility intervals are used to indicate the 95% probability that the estimate will lie between the lower and upper value of the interval. A treatment effect can be assumed to be present when the credibility interval does not include zero. A difference in treatment effect between conditions can be assumed to be present when credibility intervals between conditions do not overlap. As a measure of effect size between conditions we divided the difference between the linear slopes by the square root of the linear slope's variance (which is equal for the two conditions).[33]

Finally, to analyse individual changes in post-traumatic stress scores over time and to identify predictors in the separate treatment conditions, we applied a multigroup latent growth model to the data. Latent growth modelling (LGM) enables an examination of individual growth trajectories for each condition, allowing participants to have a different starting point (i.e. a random intercept model) and a different growth rate (i.e. a random slope model). The R-squared statistic provides the proportion of variance in post-traumatic stress symptoms that is explained by the latent growth factors. The posterior predictive p-value was checked as an indication for model fit (outcome files available upon request).

Results

Participants

Participant flow during the trial is depicted in Fig. 1. The flow diagram includes all patients who met inclusion criteria at intake, i.e. before they were informed about the study and formally interviewed.[34] Although the inclusion of 72 participants was planned, two participants who terminated their participation before the first treatment session, unaware of which condition they had been assigned to, were replaced as it was clear that no post-treatment data could be obtained for them.

Chi-square and t-tests revealed no significant demographic or clinical differences between participants and those who refused to participate (table available upon request). Table 1 shows demographic and clinical characteristics for the two conditions at baseline.
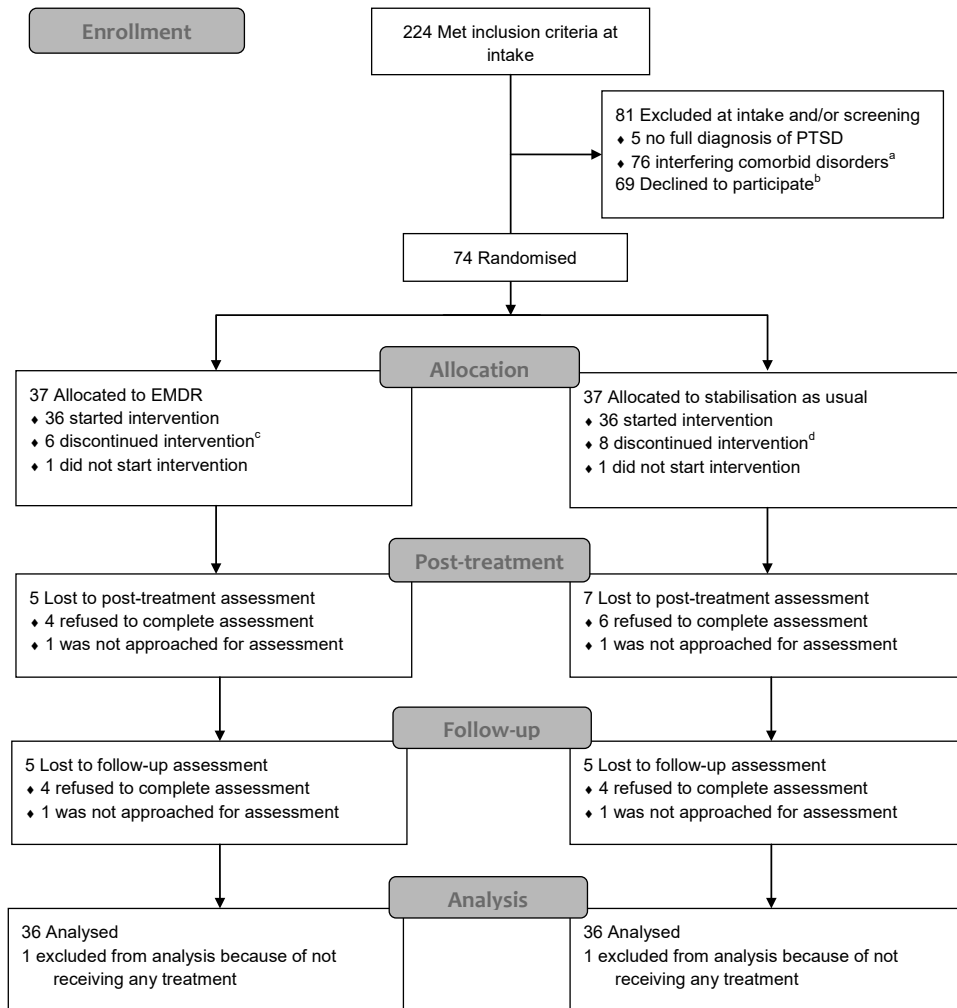
Fig. 1

CONSORT 2010 Flow Diagram

[a] 34 substance or alcohol dependence; 7 automutilation; 3 cognitive disorder; 5 eating disorder; 10 serious suicidal ideations; 16 psychotic disorder; 1 bipolar disorder

[b] 10 did not want any help at the institute; 30 found participation too much hassle; 18 did not want trauma-focused treatment; 3 did not want stabilisation; 2 did not want treatment for PTSD; 6 refused for various study-related reasons

[c] 3 did not show up for 4 consecutive appointments; 1 thought the travel distance too great; 2 did not want to continue trauma-focused therapy

[d] 6 did not show up for 4 consecutive appointments; 1 attempted suicide; 1 wanted to change to trauma-focused therapy

Table 1

Demographic and Clinical Characteristics Before Treatment

	EMDR therapy (n=36)	Stabilisation (n=36)	χ²	t-test	d.f.	P
Demographic characteristics						
Age in years, mean (s.d.)	43.1(10.7)	39.8(11.9)		1.26	70	0.21
Female, *n* (%)	6(16.7)	14(38.9)	4.43		1	0.04
Education, *n* (%)			3.44		2	0.18
No education/primary school only	7(19.4)	13(36.1)				
Secondary school/vocational training	15(41.7)	15(41.7)				
University/academy	14(38.9)	8(22.2)				
Married, *n* (%)	21(58.3)	15(41.7)	2.00		1	0.16
Employment, *n* (%)			0.60		2	0.74
Unemployed/sickness leave	21(58.3)	24(66.7)				
Volunteer work/school	8(22.2)	7(19.4)				
Employed	7(19.4)	5(13.9)				
Country of origin, *n* (%)			2.78		5	0.73
Iraq	9(25.0)	8(22.2)				
Afghanistan	9(25.0)	6(16.7)				
Former Yugoslavia	3(8.3)	5(13.9)				
Other Middle Eastern countries	6(16.7)	4(11.1)				
African countries	8(22.2)	10(27.8)				
Other	1(2.8)	3(8.3)				
Refugee background, *n* (%)			1.74		5	0.88
Political activist	14(38.9)	16(44.4)				
Civilian victim of war/organised violence	10(27.8)	7(19.4)				
Veteran	3(8.3)	4(11.1)				
Child soldier	1(2.8)	2(5.6)				
Persecution for various reasons	2(5.6)	3(8.3)				
Combination of factors	6(16.7)	4(11.1)				
Refugee status, *n* (%)			0.85		1	0.36
Asylum seeker/illegal	5(13.9)	8(22.2)				
Temporary/permanent refugee status	31(86.1)	28(77.8)				
Years in the Netherlands, mean (s.d.)	10.0(5.3)	8.9(5.1)		0.88	69	0.38
Clinical characteristics						
Types of traumatic experiences (HTQ)	13.8(5.5)	13.7(5.6)		0.85	70	0.93
Years of having PTSD, mean (s.d.)	7.9(7.2)	8.0(6.5)		-0.41	59	0.97
Comorbid depression, *n* (%)	28(77.8)	28(77.8)	0.00		1	1.00
On psychotropic medication, *n* (%)	21(58.3)	21(58.3)	0.00		1	1.00

The EMDR condition was found to contain significantly fewer female participants than the stabilisation condition. Types of traumatic experiences most frequently reported in the HTQ were being close to death (60/72, 83%), murder of family or friend (54/72, 75%) and threatened with torture (52/72, 72%). Drop-out numbers for the two conditions were comparable, with six EMDR participants (16.7%) and eight stabilisation participants (22.2%) discontinuing the intervention ($\chi^2(1, n = 72) = 0.36$, $P = 0.55$). One participant, in the stabilisation condition, terminated treatment prematurely because of symptom increase (attempted suicide). In both conditions, asylum seekers and those in the country illegally were no more likely to drop out of treatment than participants with a refugee status (EMDR therapy: $\chi^2(1, n = 36) = 0.05$, $P = 0.83$; stabilisation: $\chi^2(1, n = 36) = 0.05$, $P = 0.83$).

Treatment Integrity and Content

Treatment integrity was rated by four trained graduate-level research assistants. We randomly selected 12.5% of all treatment sessions for rating of treatment fidelity. Interrater agreement was determined for the first three ratings for both conditions. As this was consistently high (Cronbach's $\alpha = 0.95$ for EMDR and 1.0 for stabilisation), interrater agreement was deemed to be satisfactory and was not monitored thereafter.

For the EMDR condition, 36 out of 291 sessions were rated, 1/3 of which were taken from the preliminary sessions and 2/3 of which from the EMDR protocol sessions. The mean treatment fidelity score for the preliminary sessions was 97.0 (s.d. = 3.0) and for the protocol sessions 87.8 (s.d. = 9.2) on a scale of 0-100. For EMDR treatment completers ($n = 30$), Subjective Unit of Distress (SUD) scores decreased significantly from the start of treatment to the end of treatment (from $M = 8.3$, s.d. $= 1.7$ to $M = 3.9$, s.d. $= 3.7$, $t(29) = 7.5$, $P < 0.001$), with only 11 participants reaching the desired SUD of 0-1. Mean number of targets treated was 1.6 (s.d. = 1.0, range 1-5), with most participants (19/30, 63%) staying with one target.

For stabilisation, 48 out of 387 sessions were rated. The mean treatment fidelity for the stabilisation condition was 88.7 (s.d. = 8.9) on a scale of 0–100. For these 48 sessions the main interventions were registered using an intervention menu.[13] The most frequently registered interventions were discussing and teaching of coping strategies, identification and validation of negative emotions, and active problem solving by participant and therapist.

For three EMDR participants and three stabilisation participants a change of medication took place during the study. In most cases this entailed a new or changed prescription for antidepressants.

Reliability

To assess interrater reliability, 12.5% of all interviews (MINI and CAPS) were randomly selected, using stratification for time of assessment. Interrater reliability for the decision whether or not to include (using the MINI; 12.5% = 12/94) was excellent (a Cronbach's α of 1). Interrater reliability for the CAPS (12.5% = 25/198) was excellent for PTSD symptom severity (Cronbach's $\alpha = 0.95$), and good for PTSD diagnosis (Cohen's $\kappa = 0.78$).

Internal consistency for all scales was excellent, with a Cronbach's α of 0.86 for the CAPS; 0.88 for HTQ symptoms; 0.90 for the HSCL; and 0.85 for the WHOQOL-BREF.

Missing Data

Out of a total database of 1944 total or mean scores (i.e. 9 outcome measures administered 3 times with 72 participants), 186 scores (9.6%) were missing and automatically imputed for each Bayesian analysis. 'Missingness' was significantly related to drop-out, with those who ended participation prematurely being more likely to have missing data than those who completed the study (χ^2 (1, $n = 72$) = 12.85, $P < 0.001$).

Table 2

PTSD Diagnosis and Clinically Significant Change in PTSD Severity for EMDR Therapy and Stabilisation

Measure	EMDR therapy	Stabilisation	χ^2	d.f.	P
CAPS diagnosis					
T2, n/N(%)	21/33(64)	20/29(69)	0.08	1	0.78
T3, n/N(%)	26/32(81)	22/31(71)	0.92	1	0.34
CAPS severity change T1-T3			0.23	2	0.89
Deterioration (≤ -10 points), n/N(%)	7/32(21.9)	8/31(25.8)			
No change (<10 to > -10 points), n/N(%)	12/32(37.5)	10/31(32.3)			
Improvement (≥ 10 points), n/N(%)	13/32(40.6)	13/31(41.9)			

EMDR, eye movement desensitisation and reprocessing;
CAPS, Clinician Administered PTSD Scale
*P<0.05, **P<0.01

Outcomes

Primary outcomes. Table 2 describes PTSD diagnoses for the two conditions at each assessment. Numbers indicate that outcomes displayed a slightly quadratic development over time for both conditions. Between T1 and T3, the majority of assessment completers in both conditions achieved a clinically significant improvement in PTSD severity (defined as improving at least 10 points on the CAPS, see Table 2).[19]

In the LGM analyses, best model fit was obtained when including a quadratic slope. Table 3 shows the results of the intent-to-treat analyses for primary outcomes. Participants in both conditions initially achieved a clinically significant improvement in clinician-rated PTSD severity, which was partly lost after T2. EMDR participants significantly improved in self-reported PTSD symptoms according to DSM-IV. No significant differences between the two conditions were found in either linear or quadratic slopes and effect sizes between the conditions were small (for within- and between-treatment effect sizes based on unimputed data, see Table 4 in the online supplements).

Secondary outcomes. No significant differences were found between EMDR therapy and stabilisation on any of the secondary outcome measures (see Table 3). Neither intervention had a significant effect on anxiety, depression or quality of life. Quality of life, in fact, in both conditions did not show uniform improvement.

Post Hoc Analyses

Gender. As the EMDR condition contained significantly fewer female participants than the stabilisation condition, we added gender as a covariate to the LGM model. This, however, led to a decreased model fit. We therefore analysed the effect of gender on the slopes of the primary outcome measures. Low R squares for all measures and conditions showed that gender had little influence on treatment effect (see Table 5 in the online supplements).

Refugee status. As some clinicians argue that EMDR therapy with asylum seekers is not possible due to their insecure living conditions, we also analysed the effect of refugee status on the primary outcome measures. We divided the conditions in participants with no refugee status (i.e. asylum seekers and those staying in the country illegally) and those with temporary or permanent refugee status. The direction of the effect was that participants without a refugee status, regardless of treatment condition, showed more PTSD symptom reduction than participants with a refugee status. Although not statistically significant, in the stabilisation condition the effect size was medium (see Table 5 in the online supplements).

Table 3

Intent-to-Treat Analyses of the Effects of Treatment on PTSD, Anxiety, Depression and Quality of Life for EMDR Therapy and Stabilisation

Measure		Intercept	Slope	CI lower 2.5%	CI upper 2.5%	ES[a]	Q slope	CI lower 2.5%	CI upper 2.5%	ES[a]
Primary outcomes										
CAPS severity	EMDR therapy	74.71	-11.68	-24.91	1.12	-0.04	4.66	-1.70	10.50	-0.03
	Stabilisation	78.30	-12.75	-27.26	1.61		4.33	-2.55	10.98	
HTQ DSM-IV	EMDR therapy	3.06	-0.40*	-0.74	-0.04	0.20	0.15	-0.01	0.30	-0.29
	Stabilisation	3.19	-0.25	-0.57	0.06		0.06	-0.08	0.20	
HTQ total	EMDR therapy	2.85	-0.31	-0.63	0.02	0.29	0.12	-0.02	0.27	-0.38
	Stabilisation	2.90	-0.11	-0.41	0.18		0.02	-0.11	0.14	
Secondary outcomes										
HSCL anxiety	EMDR therapy	2.86	-0.09	0.43	0.25	0.09	0.02	-0.13	0.16	-0.15
	Stabilisation	3.04	-0.01	-0.45	0.43		-0.03	-0.23	0.17	
HSCL depression	EMDR therapy	2.95	-0.20	-0.55	0.16	-0.03	0.06	-0.09	0.21	0.03
	Stabilisation	2.97	-0.22	-0.59	0.18		0.07	-0.09	0.23	
WHOQOL-BREF physical	EMDR therapy	2.35	0.07	-0.36	0.49	0.07	-0.03	-0.23	0.16	-0.10
	Stabilisation	2.34	-0.01	-0.44	0.43		0.01	-0.18	0.21	
WHOQOL-BREF psychological	EMDR therapy	2.34	-0.00	-0.47	0.47	0.07	-0.03	-0.22	0.17	-0.15
	Stabilisation	2.35	-0.09	-0.61	0.44		0.04	-0.19	0.27	
WHOQOL-BREF social relationships	EMDR therapy	2.71	0.05	-0.48	0.58	-0.28	-0.09	-0.33	0.15	0.22
	Stabilisation	2.56	0.38	-0.18	0.95		-0.20	-0.46	0.05	
WHOQOL-BREF environment	EMDR therapy	2.99	-0.24	-0.61	0.14	-0.52	0.06	-0.11	0.24	0.38
	Stabilisation	2.68	0.22	-0.17	0.63		-0.08	-0.26	0.10	

EMDR, eye movement desensitisation and reprocessing; CI, credibility interval; ES, effect size; CAPS, Clinician Administered PTSD Scale; HTQ, Harvard Trauma Questionnaire; DSM-IV, Diagnostic and Statistical Manual of Mental Disorders, 4th edition; HSCL, Hopkins Symptom Checklist; WHOQOL, World Health Organization Quality of Life

*P<0.05, **P<0.01

[a] Cohen's d: 0.20 small, 0.50 medium, 0.80 large[35]

Box 1. *Waitlist condition*

The research design did not include a randomised waitlist condition as we considered it unethical to randomly ask patients to refrain from having any psychiatric or psychotherapeutic interventions for a set period of time, and as we expected that such a request would increase refusal to participate. Instead, to control for time we chose to compare the effects of the two treatment conditions with a naturalistic waitlist condition consisting of patients who for various practical reasons did not participate in the main study (mainly because inclusion for the main study had already closed). Those patients were eligible for participation who (a) were refugees of at least 18 years old, (b) had a PTSD diagnosis, (c) had been waiting to start treatment for at least 11 weeks (i.e. equal to the time between T1 and T2 for the EMDR condition) and had not had any psychiatric or psychotherapeutic intervention during that time, (d) had completed a regular psycho-diagnostic assessment (consisting of the HTQ events and DSM-IV subscales, and the HSCL-25) at intake and had granted permission to use this assessment for scientific purposes, and(e) did not meet the exclusion criteria for the main study. The files of patients who had been placed on the regular waitlist after intake were screened for these criteria by a research associate. Potential participants were contacted by telephone to ask if they were willing to complete an additional assessment before their first therapy session. Upon consent, the HTQ events and DSM-IV symptom subscales, as well as the HSCL-25 were administered before starting treatment. Thirty-six patients were enrolled in the waitlist condition. At the second assessment, significant differences in PTSD severity (EMDR $n = 32$; M = 2.79, s.d. = 0.54 *v.* waitlist, $n = 36$, M = 3.17, s.d. = 0.43, $P = 0.002$) and in anxiety (EMDR $n = 32$; M = 2.77, s.d. = 0.69 *v.* waitlist, $n = 36$, M = 3.16, s.d. = 0.66, $P = 0.21$) were found between EMDR and waitlist, with medium effect sizes (0.77, CI = 0.28 to 1.27, and 0.57, CI = 1.09 to 0.06, respectively, calculated in SPSS). In the LGM model, medium effect sizes for PTSD severity were also found between EMDR and waitlist (ES = 0.71), and stabilisation and waitlist (ES = 0.54), but these did not reach statistical significance (see Table 6 in the online supplements).

Discussion

Main Findings

In this study, no differences in safety or efficacy were found between EMDR therapy and stabilisation as usual. As previously stated, some clinicians argue that trauma-focused treatment in refugees, especially those living in unstable circumstances, may be harmful.[10] However, in this study, the EMDR and stabilisation conditions had comparable numbers of treatment drop-outs and participants reporting symptom increase. In fact, drop-out numbers were relatively low compared to other PTSD outcome studies.[36] Additionally, in the EMDR as well as the stabilisation condition asylum seekers showed an improvement at least equal to that of refugees. Results are in line with an increasing body of evidence suggesting that trauma-focused therapy carries no risk of psychologically overwhelming refugee patients, even those in unstable conditions.[10] However, conclusions may not generalise to refugee patients who meet our exclusion criteria – notably those suffering from psychotic disorders, substance dependence or severe suicidal ideations – although the justifiability of using these exclusion criteria in patients who are treated for these disorders has been called into question.[37]

Comparison to a non-randomised waitlist condition suggested that treating refugees with EMDR therapy is more effective than not treating them. However, contrary to expectation, EMDR therapy was found to be no more effective than stabilisation. The effect of stabilisation was similar to effects found for unstructured stabilisation in other refugee samples in western countries.[22,23] However, the effect of EMDR therapy was lower than expected, with effect sizes for other trauma-focused therapies in refugee samples in western countries ranging from 0.93 to 1.6 for NET[22,23] and 2.4 to 2.6 for exposure.[10,38] A primary explanation is that the number of trauma-focused sessions was lower in this study (i.e. 6 sessions of desensitisation and reprocessing) than in comparable studies (9 for NET[22,23] and 20 for TFCBT[38]). Considering the high number of types of traumatic experiences (14 in both conditions), 6 sessions appear to have been insufficient to process all memories driving PTSD symptom severity. Additionally, it is possible that equalisation of number of treatment sessions rather than number of treatment hours would have resulted in differences in efficacy between the two conditions, as it did in our pilot study.[13] A second explanation is that the study sample consisted of refugee patients who are relatively difficult to treat. Centrum '45 is a specialised institute that receives national referrals of patients who have insufficiently benefited from, or are expected to insufficiently benefit from, treatment within primary mental health care. This may be related to the complexity of their traumatic experiences (i.e. multiple, prolonged, interpersonal

traumatic events often involving intentional and extreme cruelty) as well as the complexity of their present-day lives (such as being threatened with expulsion, having no financial means, being socially isolated, fearing the effects of ongoing conflict in the country of origin).[39] Comparable studies included only participants who were fluent in the language of their resettlement country[38] or who could be treated within general health care.[23] A third possible explanation is that TFCBT (including NET) is indeed more effective than EMDR therapy in treating refugees suffering from chronic PTSD. The culturally sensitive rationale[40] and relatively simple protocol of NET might make this therapy easier to grasp for refugees and EMDR therapy may have some catching up to do in those respects. A randomised controlled trial is needed to clarify this issue.

Strengths and Limitations
This study is the first full trial that meets all CONSORT criteria to test the safety and efficacy of EMDR therapy in refugees suffering from chronic PTSD. A broad range of refugee patients were engaged in this study, including patients who needed interpreters and highly vulnerable patients who were homeless, stayed in the country illegally or were listed for forced return. They were treated by highly experienced therapists in both conditions. Bayesian estimation allowed for full intention-to-treat analysis.

The study also has several limitations. Although all instruments used have been extensively validated in refugee or transcultural samples, not all language versions were validated, which may have compromised measurement validity. In addition, a measure of positive expectancy for both therapists and patients would have been useful to explore the influence of treatment preference on treatment outcome. Asking refugees which treatment would be preferable under which circumstances would have yielded valuable information and would have enabled refugees to participate as experts as well as subjects. Last, inequality in number of treatment sessions between the two conditions may have led to a greater risk of treatment drop-out in the stabilisation condition than in the EMDR condition.

Clinical Implications
On the basis of our study it may be concluded that therapists need not refrain from offering EMDR therapy to asylum seekers or refugees suffering from chronic PTSD for fear of deterioration, although this conclusion may not necessarily generalise to refugees suffering from comorbid untreated psychosis, substance dependence and high suicidal intent. Offering only a limited number of EMDR sessions, as was the case in this study, may not result in a satisfactory reduction of PTSD and comorbid symptoms. Whether EMDR therapy would show greater efficacy

with refugees after a larger number of sessions, or with refugee patients who are referred to general rather than specialised mental health care, or when preceded by or combined with stabilising interventions, remains to be tested in future trials. This study adds to an increasing body of evidence that directly targeting traumatic memories of refugees carries no harm.

Author Contributions
JJtH, TM, AdJ and RK designed research; JJtH conducted the experiment; JJtH and RvdS performed data analysis; JJtH, TM, RvdS, AdJ and RK wrote the paper.

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83

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Online supplement

Table 4 shows unimputed outcomes as calculated by SPSS. We used pre- and post-treatment means, sample sizes and paired groups t-values calculated by SPSS to calculate effect-sizes within conditions, and means, standard deviations and sample sizes at follow-up calculated by SPSS to calculate effect-sizes between conditions. Effect-sizes and 95% confidence intervals were calculated using Comprehensive Meta-Analysis version 2 for Windows (Biostat, Englewood NJ; see http://www.meta-analysis.com/index.php).

Table 5 shows the effects of gender and refugee status on treatment outcome for both conditions.

Table 6 shows changes in symptom severity for the two treatment conditions and the non-randomised waitlist condition.

Table 4

Unimputed Analyses of the Effects of Treatment on PTSD, Anxiety, Depression and Quality of Life for EMDR Therapy and Stabilisation

Measure	Condition	T1		T2		T3		Es[a] T1-T3	Es[a] EMDR - stabilisation
		n	Mean (s.d.)	n	Mean (s.d.)	n	Mean (s.d.)	(95% CI)	(95% CI) at T3
Primary outcomes									
CAPS severity	EMDR therapy	36	74.69(18.01)	32	67.38(23.16)	32	69.94(25.07)	0.19(-0.16 to 0.54)	-0.02(-0.51 to 0.63)
	Stabilisation	36	78.25(18.34)	29	68.86(26.93)	31	69.55(25.05)	0.30 (-0.06 to 0.66)	
HTQ DSM-IV	EMDR therapy	36	3.05(0.49)	32	2.79(0.54)	31	2.86(0.58)	0.38(0.02 to 0.73)*	0.13(-0.36 to 0.63)
	Stabilisation	36	3.19(0.43)	30	2.98(0.62)	32	2.94(0.59)	0.39(0.03 to 0.75)*	
HTQ total	EMDR therapy	34	2.86(0.45)	32	2.63(0.57)	31	2.73(0.63)	0.20(-0.17 to 0.57)	0.04(-0.45 to 0.54)
	Stabilisation	34	2.90(0.51)	30	2.79(0.62)	32	2.76(0.62)	0.25(-0.11 to 0.61)	
Secondary outcomes									
HSCL anxiety	EMDR therapy	35	2.86(0.57)	32	2.77(0.69)	31	2.75(0.71)	0.02(-0.34 to 0.37)	0.10(-0.39 to 0.59)
	Stabilisation	36	3.04(0.66)	30	2.98(0.66)	32	2.89(0.69)	0.17(-0.18 to 0.52)	
HSCL depression	EMDR therapy	35	2.94(0.52)	32	2.79(0.61)	31	2.81(0.61)	0.30(-0.07 to 0.66)	-0.01(-0.50 to 0.49)
	Stabilisation	36	2.97(0.61)	30	2.80(0.66)	32	2.80(0.64)	0.26(-0.09 to 0.61)	
WHOQOL–BREF physical	EMDR therapy	36	2.35(0.60)	31	2.39(0.60)	31	2.34(0.58)	-0.10(-0.45 to 0.26)	-0.06(-0.55 to 0.44)
	Stabilisation	36	2.34(0.53)	29	2.36(0.72)	32	2.37(0.62)	0.03(-0.32 to 0.37)	
WHOQOL–BREF psychological	EMDR therapy	36	2.34(0.65)	31	2.34(0.71)	31	2.21(0.65)	-0.18(-0.53 to 0.18)	-0.17(-0.66 to 0.33)
	Stabilisation	36	2.35(0.70)	29	2.30(0.91)	32	2.33(0.77)	-0.01(-0.36 to 0.33)	
WHOQOL–BREF social relationships	EMDR therapy	36	2.71(0.80)	31	2.72(0.80)	31	2.49(0.86)	-0.32(-0.69 to 0.04)	0.04(-0.46 to 0.53)
	Stabilisation	36	2.55(0.98)	29	2.65(0.88)	32	2.46(0.87)	0.00(n.a.)	
WHOQOL–BREF environment	EMDR therapy	36	2.99(0.70)	31	2.81(0.60)	31	2.77(0.57)	-0.32(-0.68 to 0.04)	-0.06(-0.56 to 0.43)
	Stabilisation	35	2.65(0.66)	29	2.84(0.80)	32	2.81(0.65)	0.15(-0.21 to 0.50)	

EMDR, eye movement desensitisation and reprocessing; TAU, treatment as usual; CI, credibility interval; ES, effect size; CAPS, Clinician Administered PTSD Scale; HTQ, Harvard Trauma Questionnaire; DSM-IV, Diagnostic and Statistical Manual of Mental Disorders, 4th edition; HSCL, Hopkins Symptom Checklist; WHOQOL, World Health Organization Quality of Life

[a] Cohen's d: 0.20 small, 0.50 medium, 0.80 large[35]

*P<0.05, **P<0.01

Table 5

Effects of Gender and Refugee Status on Treatment Outcome for EMDR and Stabilisation

	Measure	Condition	beta	SE	CI lower 2.5%	upper 2.5%	R^2[a]	CI 0 to
Gender	CAPS total	EMDR therapy	3.36	6.95	-10.08	17.27	0.05	0.38
		Stabilisation	-1.94	4.33	-10.43	6.49	0.03	0.28
	HTQ DSM-IV	EMDR therapy	-0.06	0.17	-0.40	0.27	0.04	0.32
		Stabilisation	-0.03	0.10	-0.23	0.17	0.03	0.23
	HTQ total	EMDR therapy	-0.07	0.18	-0.43	0.28	0.04	0.29
		Stabilisation	-0.03	0.11	-0.24	0.19	0.02	0.20
Refugee status	CAPS total	EMDR therapy	0.17	6.31	-12.19	12.67	0.03	0.28
		Stabilisation	7.98	5.05	-1.74	17.98	0.14	0.55
	HTQ DSM-IV	EMDR therapy	0.13	0.15	-0.17	0.42	0.06	0.38
		Stabilisation	0.19	0.12	-0.05	0.42	0.14	0.51
	HTQ total	EMDR therapy	0.11	0.16	-0.20	0.42	0.04	0.23
		Stabilisation	0.19	0.13	-0.06	0.44	0.11	0.43

EMDR, eye movement desensitisation and reprocessing; SE, standard error; CI, credibility interval;

CAPS, Clinician Administered PTSD Scale; HTQ, Harvard Trauma Questionnaire;

DSM-IV, Diagnostic and Statistical Manual for Mental Disorders, 4th edition

[a]0.02 small, 0.13 medium, 0.26 large[35]

*P<0.05, **P<0.01

89

Table 6

Intent-to-Treat Analyses of Change in Symptom Severity for EMDR Therapy, Stabilisation and Non-Randomised Waitlist

Measure	Condition	Intercept	Slope	CI lower 2.5%	upper 2.5%	ES[a]
Primary outcomes						
HTQ DSM-IV	EMDR therapy	3.05	-0.26*	-0.46	-0.06	EMDR - stabilisation 0.17
	Stabilisation	3.19	-0.21*	-0.41	-0.01	EMDR - waitlist 0.71
	Waitlist	3.20	-0.03	-0.18	0.12	Stabilisation - waitlist 0.54
Secondary outcomes						
HSCL anxiety	EMDR therapy	2.86	-0.08	-0.28	0.13	EMDR - stabilisation 0.05
	Stabilisation	3.04	-0.06	-0.36	0.24	EMDR - waitlist 0.40
	Waitlist	3.09	0.08	-0.14	0.28	Stabilisation - waitlist 0.35
HSCL depression	EMDR therapy	2.94	-0.15	-0.38	0.07	EMDR - stabilisation 0.00
	Stabilisation	2.97	-0.15	-0.38	0.09	EMDR - waitlist 0.23
	Waitlist	2.99	-0.06	-0.24	0.13	Stabilisation - waitlist 0.23

EMDR, eye movement desensitisation and reprocessing; HTQ, Harvard Trauma Questionnaire;

DSM-IV, Diagnostic and Statistical Manual of Mental Disorders, 4th edition; HSCL, Hopkins Symptom Checklist;

ES, effect size

[a] Cohen's d: 0.20 small, 0.50 medium, 0.80 large[35]

*P<0.05, **P<0.01

Part III
Patients

The eyes are of little use if the mind be blind.

(Arabian proverb)

Chapter 5
Predictors of PTSD treatment response in refugees: Multilevel analysis

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Abstract

Background

Given the recent peak in refugee numbers and refugees' high odds of developing PTSD, finding ways to alleviate PTSD in refugees is of vital importance. However, there are major differences in PTSD treatment response between refugees, the determinants of which are largely unknown.

94

Objective

This study aims at improving PTSD treatment for adult refugees by identifying predictors of PTSD treatment response.

Method

The predictive value of demographic, trauma-related, clinical and treatment-related variables was analysed using multilevel regression analysis. Treatment outcome data were used of 72 refugees with PTSD who participated in a randomized controlled trial with pre-, post-, and follow-up measurements.

Results

The presence and severity of a pretreatment major depressive disorder explained 34% of the variance between individuals.

Conclusions

Refugee patients who suffer from PTSD and severe comorbid depression may benefit less from treatment aimed at alleviating PTSD. In severely depressed patients, low treatment response to trauma-focused treatment may be related to under- and overengagement of the fear structure or comorbid grief. Results highlight the need for adaptations of treatment for PTSD and comorbid severe depression in traumatized refugees, including an initial targeting of severe depressive symptoms, adding grief-focused interventions to PTSD treatment, and carefully monitoring medication compliance.

Keywords: therapy, EMDR, stabilization, prognosis, effectiveness, treatment outcome.

Introduction

Armed conflict and political oppression disrupt lives and force many to flee their home country to look for protection elsewhere. In 2014, forced migration resulted in over almost 20 million refugees worldwide, three million of whom resettled in western countries (UNHCR, 2015). Experiences of physical and psychological violence in their home country, losing home and loved ones, and the stresses of forced migration (Steel et al., 2009) may cause severe psychological distress in refugees and increase their odds of developing posttraumatic stress disorder (PTSD; American Psychiatric Association [APA], 2013). With a prevalence rate of 9%, resettled refugees in western countries are ten times more likely to develop PTSD compared to general populations (Fazel, Wheeler, & Danesh, 2005). PTSD is known to heavily interfere with refugees' ability to function as individuals as well as in their families, communities and society as a whole (Söndergaard & Theorell, 2004). Finding ways to alleviate the burden of PTSD in refugees is therefore of great importance.

Since the beginning of the 21st century, a number of randomised controlled trials (RCT's) of psychological treatment for PTSD in refugees have been conducted. Meta-analytically, a large effect-size has been found for trauma-focused treatment in refugees, especially narrative exposure therapy (NET) and culturally-adapted cognitive-behavior therapy (CA-CBT) (Lambert & Alhassoon, 2015). Despite this overall efficacy, there are major differences in treatment outcome between patients. Between 18 to 54% of refugees show no clinical improvement after psychological treatment (e.g., Stenmark, Guzey, Elbert, & Holen, 2014; Ter Heide, Mooren, Van de Schoot, De Jongh, & Kleber, in press).

The use of group-averages risks masking positive and negative effects between subgroups because it does not take individual differences in treatment response into account (Moynihan, Henry, & Moons, 2014). To optimise treatment response in different patients and different subgroups, PTSD outcome research would profit from the identification of markers that distinguish between different types of responders. Predictor research enables clinicians to identify (non-) responders and tailor interventions to target variables that influence treatment response (Riley et al., 2013).

Research has identified several potential predictors of treatment response in refugees. Several *demographic variables*, such as gender, have been found to predict treatment-response in both refugees and non-refugees (e.g. Betancourt et al., 2012; Stenmark et al., 2014). Within this category, *transcultural demographic variables* such as refugee status (Raghavan, Rasmussen, Rosenfeld, & Keller, 2013) are particularly relevant, as not having a refugee status is often assumed to

predict low treatment-response in asylum seekers (National Institute for Clinical Excellence [NICE], 2005). *Trauma-related variables*, including number and type of traumatic experience, are relevant because a higher number of interpersonal traumatic experiences and childhood traumatization have been reported to be indicative of complex and more severe symptomatology and limited treatment-response (Cloitre et al., 2012). Furthermore, type of traumatic experience has been shown to have predictive value with refugees (Stenmark et al., 2014). *Clinical variables*, such as pre-treatment symptomatology (Van Wyk, Schweitzer, Brough, & Vromans, 2012), and comorbid disorders including PTSD (Schulz, Resick, Huber, & Griffin, 2006) and depression severity (Silove, Manicavasagar, Coello, & Aroche, 2005), are assumed to lead to more complex symptomatology and are sometimes reason to exclude patients from particular treatments (Spinazzola, Blaustein, & Van der Kolk, 2005). Last*, treatment-related variables*, such as premature termination and number of sessions, are important as they have been shown to predict treatment outcome in non-refugee samples (Haagen, Smid, Knipscheer & Kleber, in press; Tarrier, Sommerfield, Pilgrim, & Faragher, 2000). Within this group of variables also, *transcultural treatment-related variables* such as use of interpreter require special examination. Interpreters may change the nature of the therapeutic relationship and limit disclosure of guilt- or shame-related traumatic events (Miller, Martell, Pazdirek, Caruth, & Lopez, 2005). This overview illustrates that the evidence concerning refugee treatment response predictors is still very limited.

Factors that may complicate psychological treatment (such as lack of refugee status, high number of severe traumatic events, and need of interpreters) are sometimes assumed to limit feasibility of treatment of refugees and may lead to exclusion of refugees from certain types of treatment. To contribute to the identification of such factors and help correct or confirm such assumptions, this paper describes the outcomes of a multilevel analysis of PTSD treatment outcome data of adult refugees. Multilevel analysis is an advanced statistical method well suited for analyzing longitudinal data with multiple dependent outcomes.

Methods

Study Design
We analyzed data from an RCT that compared the safety and efficacy of eye movement desensitization and reprocessing therapy (EMDR) and stabilization in asylum seekers and refugees suffering from PTSD. The trial was performed at two locations of a Dutch specialist psychotrauma treatment and research center, Foundation Centrum '45. Both interventions provided 12 hours of treatment contact divided over nine (EMDR) and twelve (stabilization) sessions.

Participants completed an assessment at the start of treatment, post-treatment and at three-month follow-up. Both treatments were shown to be safe and limitedly efficacious, and no differences in outcomes between treatments were found. For a comprehensive report of study design and outcome, see Ter Heide et al. (in press).

Sample

The sample consisted of 72 treatment-seeking adult refugees and asylum seekers who met the DSM-IV-TR diagnostic criteria for PTSD, 36 of whom were assigned to EMDR and 36 to stabilization. Six participants (17%) in the EMDR and eight (22%) participants in the stabilization condition prematurely terminated treatment. Participants in both conditions benefited equally from treatment (EMDR β = .44 vs. stabilisation β = .48, p > .05). There were no differences in demographic or clinical variables between the two conditions, except that patients in the EMDR condition were more likely male (83 vs. 61%; χ^2 = 4.4, p < .05).

Predictor Variables

We selected those predictor variables that were thought to carry clinical relevance (see introduction). Variables were taken from both patient files (including diagnostic reports) and outcome measures. For an overview of predictor variables for the whole sample, see Table 1.

Outcome Measure

The Clinician-Administered PTSD Scale (CAPS; Blake et al., 1995) served as the primary outcome measure at each measurement interval. It consists of 17 items used to diagnose PTSD according to DSM-IV. Frequency and severity of symptoms are rated on two five-point Likert scales ranging from 0 (*absent*) to 4 (*extreme*), resulting in a score range of 0-136. The CAPS has good psychometric properties across a variety of clinical populations (Weathers, Keane, & Davidson, 2001), including refugees (Charney & Keane, 2007). The internal consistency in the present sample was good (Cronbach's α = .86).

Predictive Measures

The Hopkins Symptom Checklist (HSCL-25) is a screening instrument for anxiety and depression which has been designed especially for use with traumatized refugees (Mollica, Wyshak, De Marneffe, Khuon, & Lavelle, 1987). The current study used the depression section of the instrument to assess pretreatment depression severity. This section consists of 15 items that are rated on a four-point Likert scale ranging from 1 (*not at all*) to 4 (*extreme*). Internal consistency of the depression subscale in the present sample was excellent (Cronbach's α = .91).

Table 1

Pretreatment Demographic and Clinical Data

Characteristics		Sample (N=72)
Patient characteristics		
Age in years, mean (s.d.)		41.5(11.3)
Years in the Netherlands, mean (s.d.)[i]		9.4(5.2)
Origin, *n*(%)	Europe	8(11)
	Asia	20(28)
	Africa	19(26)
	Middle East	25(35)
Gender, *n*(%)	Male	52(72)
Education, *n*(%)	No education/ Primary school	19(26)
	Secondary school or higher	53(74)
Marital status, *n*(%)	Married	36(50)
	Single/ Divorced / Widow	36(50)
Residency status, *n*(%)	Temporary / Permanent Permit	59(82)
	Pending / Rejected	13(18)
Employment, *n*(%)	Unemployed / Sick leave	45(62)
	Volunteer work/ School	20(28)
	Employed	7(10)
Number of PTE's, mean (s.d.)		12(5)
Type of PTE, *n*(%)	Murder of friends/family	54(75)
	Combat situation	48(67)
	Physical torture[ii]	46(66)
	Imprisonment[ii]	44(63)
	Serious injury[i]	39(55)
	Rape or sexual abuse[ii]	16(23)
Refugee background, *n*(%)	Civilian	30(42)
	Political	17(24)
	Veteran	10(14)
Medication use[i], *n*(%)		43(59)
Presence of a comorbid depressive disorder		46(64)
Symptom severity levels, mean (s.d.)	CAPS	76.5(18.1)
	HSCL[i]	2.9(.56)
Quality of Life, mean (s.d.)		2.1(.84)
Treatment characteristics		
Interpreter presence, *n*(%)		40(56)
Social work support, *n*(%)		6(8)
Number of sessions T1-T2, mean (s.d.)		10.7(2.8)
Treatment dropout, *n*(%)		14(19)

Note. PTE's = potentially traumatic events. [i] *n* = 71, [ii] *n* = 70.

The short version of the World Health Organization Quality of Life assessment (WHOQOL-Bref; The WHOQOL Group, 1998) was used to measure pretreatment quality of life (QoL) on four separate health domains. The scale consists of 26 items rated on a four-point Likert scale ranging from 1 to 5 (a higher score indicating a higher QoL). The WHOQOL-Bref is considered a cross-culturally valid instrument with good psychometric properties (Skevington, Lotfy, & O'Connell, 2004). The internal consistency of the scale in the present sample was good (Cronbach's α = .79).

Data Analysis

Independent-samples t-tests and chi-square (χ^2) comparisons were used to examine possible differences between patients per condition, after which longitudinal multilevel modeling (MLM) was used to predict PTSD severity scores over time. Longitudinal MLM enables the identification of variables that predict the variance within persons (time level) and between persons (individual level). We calculated the intraclass correlation (ICC) statistic to determine which proportion of the total variance is located at the each of these levels (Hruschka, Kohrt, & Wortman, 2005). The level-1 variables consisted of PTSD symptom severity at each assessment and included the assessment itself (time). The pretreatment assessment was considered time = 0. Each subsequent assessment increased the time variable by 1. Level-2 variables consisted of the between-individual variables to predict changes in the slope of time. MLM does not assume independence between outcome observations nor between the residuals and errors (Graham, 2009). It is better suited than ANOVA repeated measures to deal with assumptions of sphericity, unbalanced data, sampling hierarchy and missing data, and it increases statistical power beyond ANOVA designs (Hruschka et al., 2005). Classic standard errors were used because robust standard errors may be biased in samples with less than 100 patients (Hox & Maas, 2001)

To enhance sample size, CAPS severity scores were imputed. We created 10 imputation datasets using predictive mean matching (PMM), and imputed 15% of the posttreatment and 13% of the follow-up CAPS scores. There were no missings in the Level-2 data (i.e., individual predictor data), except for one person with a missing pretreatment HSCL-25 (depression) score. PMM is a recommended multiple imputation technique to increase the reliability of the results (Vink, Frank, Pannekoek, & Van Buuren, 2014). To preserve the multilevel structure of the data and consequently precise estimates, a partitioned PMM was used (Vink, Lazendic, & Van Buuren, in press). Missing data were considered missing at random (MAR) if patients dropped out of treatment without notification, due to travel distance, or due to increase in suicidal ideations. Participants who discontinued treatment for

treatment-related reasons were considered not missing at random (NMAR). All NMAR cases had complete data at all measurement intervals.

A stepwise multilevel model was constructed. Longitudinal intercept-only multilevel models tend to overestimate the variance at the time level (within-subject) and underestimate it at the subject level (Hox, 2010). To offer a more realistic model, the time variable was included in the intercept-only model ($CAPS_{ti}$ = β_{00} + $\beta_{10}*TIME_{ti}$ + r_{0i} + $r_{1i}*TIME_{ti}$ + e_{ti}). First, the intercept-only model with a fixed effects time component was compared with the intercept-only model with a random effects time component to test whether there were individual trajectories between patients in treatment response (random slope), or whether all patients had a similar trajectory (fixed slope). Full Maximum Likelihood (FML) estimates enabled comparisons between the different fit models. A chi-square test based on the difference in deviance between models enabled assessment of the best model fit. The best fit model was chosen as the baseline model. Second, univariate predictor variables were added to the baseline model to test whether these variables predicted PTSD severity change via the time slope. During this step we controlled for any possible effects from treatment condition and location by adding them to the baseline model. As no difference in efficacy between treatments was found in the RCT, we combined patient data of both conditions to increase predictive power. This strategy is recommended providing treatment condition is added to the model as a control variable (Moons, Royston, Vergouwe, Grobbee, & Altman, 2009). Third, all significant and control predictors were added to the baseline model and simultaneously analysed in a final multilevel model. The proportion of explained variance (R^2) was calculated for the final model (Hox, 2010).

Results

The result section offers a step-by step-overview of the identification process of predictors. Table 2 consists of a correlation matrix of the principal predictors and PTSD outcome measure at each time measurement interval.

Baseline Model

The intraclass correlation (ICC) of the fixed time slope baseline model was .57, meaning that 57% of the variance of CAPS outcome scores was explained by differences between individuals at the group level. The remaining 43% of the variance was explained by differences within each subject, indicating the extent to which the CAPS scores of an individual tended to vary over time.

We compared the fixed time slope baseline model with a random time slope. The random time slope model had a significant better fit compared to the fixed slope model (χ^2 = 14.1; p < .001). This indicated the presence of unexplained

Table 2

Correlation Matrix

		1	2	3	4	5	6	7	8	9	10
PTSD severity pretreatment	1	1									
PTSD severity posttreatment	2	.61**	1								
PTSD severity follow-up	3	.47**	.70**	1							
WHOQOL-Bref pretreatment	4	-.41**	-.42**	-.33**	1						
Depression diagnosis	5	.20	.25	.23	-.14	1					
Depression severity pretreatment	6	.56**	.36**	.47**	-.54**	.06	1				
Dropout	7	.03	.07	.17	-.11	.00	.04	1			
No. of sessions	8	.06	-.04	-.14	.04	-.12	-.01	-.73**	1		
Location	9	-.27*	-.09	.06	.05	-.28*	-.14	-.15	.12	1	
Condition	10	.10	.03	-.01	-.09	-.23	.03	.07	.48**	.00	1

Note. Dropout: 0 = Treatment completer, 1 = Dropout. Location: 0 = Centre 1, 1 = Centre 2. Condition: 0 = EMDR, 1 = Stabilization.
*$p < .05$. **$p < .01$

between-subject variation in PTSD symptom severity over time and permitted the search for individual characteristics (predictors) to explain this variability. The baseline model showed an average PTSD symptom severity of 75 CAPS points at pretreatment and a significant 3-point decrease in PTSD symptoms per time interval (B = 3.0, p < .05).

Baseline With Predictors
The control variables condition and location were added to the baseline model. Each predictor was subsequently added to the 'baseline plus control variables' model in a separate multilevel analysis. Each separate multilevel model has a different average symptom decrease because part of the decrease is explained by the unique predictors in each model.

Mean pretreatment depression severity (B = 6.0, SE = 2.4, p = .02) predicted poor PTSD treatment response over time. The model had an average PTSD symptom decrease of 22.9, meaning that for each 1-point increase in HSCL depression score (to a maximum of 4), the PTSD symptom decrease would be 6 points less with a maximum of 24 points. Patients with maximum depression severity scores would experience a small increase in PTSD severity at posttreatment and follow-up. This indicated that patients with progressively severe levels of depression had progressively less PTSD symptom reduction over time.

Similarly, a diagnosis of major depressive disorder also proved predictive of poor treatment response (B = 6.0, SE = 3.0, p = .05). The average PTSD symptom decrease in this model was 10.7 points, indicating that patients with a major depressive disorder improved less than patients without a major depressive disorder.

Pretreatment quality of life (B = -3.1, SE = 1.6, p = .05) predicted increased PTSD symptom reduction. Each 1-point QoL increase—with a maximum of 5 points— led to a further decrease of PTSD symptoms by 3 points, with a maximum of 15 points on the highest QoL level. The average PTSD symptom reduction for this model was 1.6, indicating that patients with the lowest QoL scores experienced a small increase in PTSD symptoms rather than benefited from treatment, whereas patients with progressively higher QoL levels experienced progressively stronger PTSD symptom reduction over time. None of the other predictors were significant.

Table 3

Hierarchical Multilevel Regression Analyses Predicting PTSD Treatment Outcome (N = 72)

Parameter	Baseline model		Baseline model		Multivariate model	
	B	S.E.(B)	*B*	S.E.(B)	*B*	S.E.(B)
Fixed effects	75.0***	2.2	75.0***	2.2	75.***	2.2
Level 1						
Time	-3.0*	1.4	-3.0*	14	-23.9*	11.2
Level 2						
Location					6.2*	2.8
Condition					.31	2.7
Depression severity					5.5*	2.7
Depression diagnosis					6.2*	2.9
Quality of Life					-.82	1.6
Random parameters						
σ²$_e$ (SD)	232.4 (15.2)		189.7 (13.8)		190.7 (13.8)	
σ²$_u$0 (SD)	306.1 (17.5)***		186.6 (13.7)***		185.1 (13.6)***	
σ²$_u$1 (SD)			42.7 (6.5)**		31.6 (5.6)**	
-2 log likelihood ratio	1904.8		1890.7		1876.3	

Note. Fit difference between baseline models: $\chi^2(14.1, df = 2, p < .001)$; Fit difference between baseline random time model and multivariate model $\chi^2(14.4, df = 5, p < .05)$.
* $p < .05$; ** $p < .01$; *** $p < .001$

Final Model

The final model (Table 3) included all significant and control predictors in the MLM analysis. The equation was: $CAPS = \beta_{00} + \beta_{10}*TIME + \beta_{11}*CONDITION*TIME + \beta_{12}*LOCATION*TIME + \beta_{13}*DEPRESSION\ DIAGNOSIS*TIME + \beta_{14}*DEPRESSION\ SEVERITY*TIME + \beta_{15}*QoL*TIME + r_0 + r_1 + e$. The average PTSD severity decreased with 23.9 points over time. This average slope represents patients with neither depression symptoms nor a diagnosis (best case scenario). For each 1-point increase in pretreatment depression severity, symptom reduction would be 5.5 points less ($SE = 2.7$, $p = .04$). Patients with the maximum depression severity score of 4 would benefit least from treatment with a slope of -1.9 points over time. Patients with a pretreatment major depressive diagnosis had 6.2 points less PTSD symptom reduction over time ($SE = 2.9$, $p = .04$). QoL no longer predicted treatment response in the final model ($B = -1.4$, $SE = 1.5$, $p = .35$). Figure 1 shows four different possible trajectories for patients based on the presence of a depressive disorder and minimum and maximum depression severity.
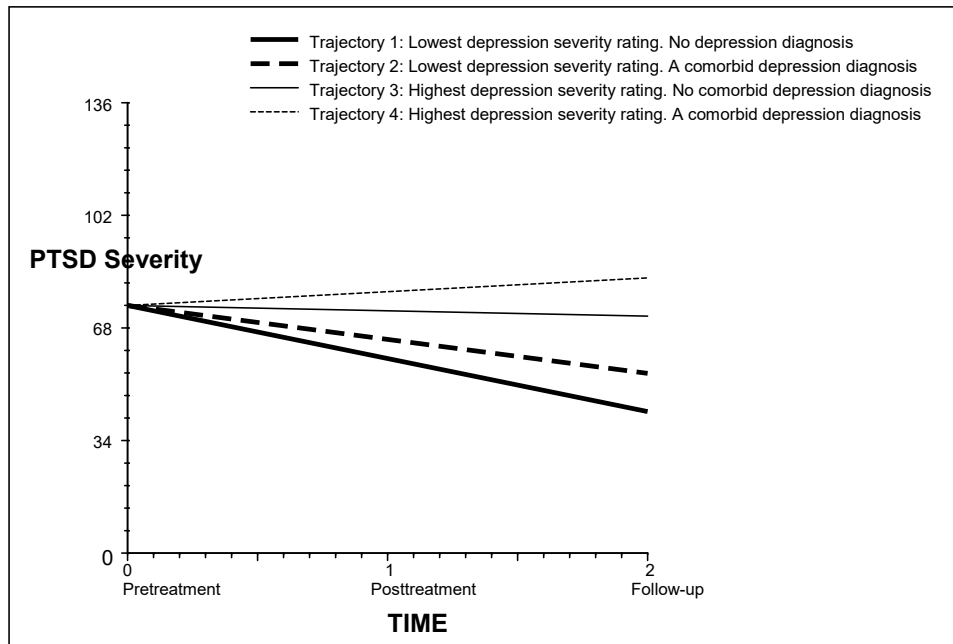
Figure 1 *Four Treatment Trajectories Over Time*

Note. The PTSD severity score (y-axis) was measured with the CAPS. Depression severity was measured with the HSCL-25; the severity rating ranged from 1-4. A comorbid depression diagnosis was dummy coded into 0 = No comorbid depression, 1 = Comorbid depression.

The final model explained 34% of the variance between individuals. In sum, the change in PTSD severity scores at posttreatment and follow-up was mostly (57%) the result of individual differences between patients. A sizeable portion (34%) of these differences was explained by the presence and severity of comorbid depression.

Discussion

This study aimed to explain variations in treatment response in an RCT for refugee patients suffering from PTSD. Using multilevel regression analysis at multiple time intervals, the present study identified pretreatment depressive symptom severity and a diagnosis of depressive disorder as predictors of poor PTSD treatment response. Remarkably, we found no evidence for the predictive value of variables that are traditionally seen as indicative of treatment response in traumatised refugees, including post-immigration stressors (such as lack of refugee status) and treatment factors (such as need for an interpreter). Lower QoL levels did predict poor response, though this effect was not found in the final model due to overlap between QoL and depression as indicators of symptom severity.

A major depressive disorder is a common comorbid disorder associated with PTSD (Buhmann, 2014; Keller, Feeny, & Zoellner, 2014). There is consistent cross-sectional evidence of greater symptom severity, higher disability levels, and poorer functioning among PTSD patients with comorbid depression compared to patients with PTSD only (Bedard-Gilligan et al., 2015; Momartin, Silove, Manicavasagar, & Steel, 2004). Despite this evidence, few studies have considered comorbid depression as a predictor of poor treatment outcome (Mirdal, Ryding, & Essendrop et al., 2011; Silove et al., 2005). Comorbid depression did predict poor PTSD treatment response and premature treatment termination in non-refugee samples, namely traumatized civilians (Bryant, Moulds, Guthrie, Dang, & Nixon, 2003; Taylor et al., 2001) and childhood sexual abuse victims (McDonagh et al., 2005).

The mechanisms through which depression limits psychological recovery are still largely unknown. Angelakis and Nixon (2015) offer several explanations based on emotional processing theory. The first explanation is that successful treatment depends on the modification of traumatic memory structures that underlie emotions via engagement of the fear structure through exposure and subsequent habituation. An inability to fully experience emotional affect (emotional numbing) in depressed patients may lead to under-activation (underengagement) of the fear structure. Alternatively, underengagement may be promoted by avoidance strategies present in both PTSD and depression, such as rumination and overgeneralising traumatic memories, which inhibit the full experiencing

of negative emotions. The second explanation is that a greater accessibility of negative autobiographical memories as a result of depression inhibits emotional disengagement from negative trauma content during exposure. This would result in a contrary reaction in which depressive patients become overwhelmed by the emotional intensity of the traumatic memories (overengagement) and successful habituation is prevented.

Angelakis and Nixon base their hypotheses on the assumption that PTSD treatment involves exposure to traumatic memories. Because not all PTSD interventions—e.g. stabilization—target traumatic memories, we propose an alternative hypothesis. In refugee patients with comorbid depression and PTSD, loss and grief may be at the heart of their pathology. The violent loss of friends and family members is a common occurrence among refugees. Momartin et al. (2004) reported that refugee patients who experienced a traumatic loss were five times more likely to develop comorbid depression besides PTSD compared to patients without traumatic loss. PTSD development was primarily related to exposure to life threatening situations (Momartin, et al., 2004), while comorbid depression development was related to exposure to significant losses (Kersting et al., 2009). Loss may be a major cause of depression and may require different treatment strategies besides a focus on PTSD. This hypothesis corresponds with the view that PTSD may not always be central to refugee functioning (e.g. Summerfield, 1999).

Strengths and Limitations
The present study is one of the first to examine comorbid depression as a predictor of poor PTSD treatment response in refugees. We used multiple measurements and employed multilevel analysis to better represent the nested data for each individual compared to traditional (ANOVA) methods. The present study examined a severely traumatized patient sample and used an RCT design with few exclusion criteria. Current findings may be applicable to other treatment populations who suffered multiple traumatic events and display high depression comorbidity.

There are also limitations. The use of exploratory analysis risks reporting false positives. Due to the lack of predictive studies however an exploratory analysis was deemed more useful for the detection of possible predictors that otherwise would remain undiscovered if a strictly a priori method was used. The current findings need to be replicated using confirmatory testing methods. Comorbid depression may have a different effect on other PTSD treatments which due to our limited sample size we were unable to explore. The small sample size may also have created insufficient power to detect all clinically significant outcome predictors.

Practical Implications

In this study, factors that are traditionally assumed to limit treatment response in traumatised refugees, such as lack of refugee status or need for an interpreter, were not found to predict treatment response. These factors are sometimes used as reasons to exclude refugee patients from trauma-focused treatment. Our study implies that trauma-focused and PTSD-focused treatments can be offered to broader ranges of refugees and need not be limited to those who are relatively psychosocially stabilized.

Comorbid depression was found to predict treatment response. Comorbid depression appears highly prevalent among refugees with PTSD (Momartin et al., 2004). Therapists are recommended to routinely screen for the presence and severity of a major depressive disorder. This allows for the identification of a subgroup at risk of treatment nonresponse. In accordance with treatment guidelines for PTSD (e.g. NICE, 2005), we recommend initially targeting severe depression (which will also likely lower PTSD symptoms; Keller et al., 2014), and commence concurrent PTSD treatment only after alleviation of severe depressive symptoms. There is however no evidence available whether this sequential approach or another strategy (e.g. concurrent treatment) for PTSD and severe depression is superior to treatment of PTSD alone (Angelakis & Nixon, 2015). Special consideration should be given to compliance to pharmacological treatment in refugees. This has been found to be relatively low due to cultural beliefs which may promote non-compliance (Briggs & Macleod, 2006).

A sole focus on PTSD for traumatized refugees may fall short in the presence of severe comorbidity (Buhmann, 2014) and may oversimplify complex problems (Briggs & Macleod, 2006). Therapists are recommended to carefully discuss patient needs and whether these primarily focus on PTSD, depression or perhaps grief, because an exclusive focus on PTSD may be insufficient to decrease PTSD symptoms. Targeting the primary needs of refugees rather than automatically focusing on PTSD may be more transculturally appropriate for traumatised refugees (Summerfield, 1999).

Conclusion

There are major individual differences in treatment outcome between refugees, yet the nature of these differences remains elusive. The present study identified the presence and severity of a comorbid major depressive disorder as predictors for poor PTSD outcome in traumatized refugees. These results highlight the need for alternative treatment strategies for PTSD and comorbid severe depression in traumatized refugees, including an initial targeting of severe depressive symptoms, adding grief-focused interventions to PTSD treatment, and carefully monitoring

medication compliance. Future research should test whether such approaches are superior to treatment that focuses on PTSD only, or to treatment with a concurrent focus on PTSD and depression.

Author Contributions
JH and JJtH contributed equally to this work. JJtH, TM, and RK designed the RCT; JH and JJtH designed the method for the present study; JH planned and performed data analysis; JH, JJtH, TM, JK and RK wrote the paper.

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109

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Chapter 6
Difficult to treat?
A comparison of the effectiveness of treatment as usual in refugees and non-refugees

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Abstract

Aims and method

To examine treatment response in traumatised refugees, we compared Routine Outcome Monitoring data (Harvard Trauma Questionnaire) of two refugee populations with those of individuals experiencing profession-related trauma who were treated at a specialised psychotrauma institute.

Results

Asylum seekers/temporary refugees ($n = 21$) and resettled refugees ($n = 169$) showed significantly less PTSD symptom reduction between intake and one year after intake than did a comparison group of non-refugees ($n = 37$), but the interaction effect was clinically small (partial eta squared = 0.03). Refugees who had more severe symptoms at intake showed significantly greater symptom reduction after one year.

Clinical implications

Therapists and refugee patients should have realistic expectations about response to treatment as usual. Additional treatment focusing on improving quality of life may be needed for refugees whose PTSD symptom severity remains high. At the same time, novel approaches may be developed to boost treatment response in low-responsive refugee patients.

Difficult to treat? Effectiveness of treatment as usual in refugees

115

Introduction

Among many clinicians, traumatised asylum seekers and refugees have a reputation of being difficult to treat. Low treatment response in refugees is often attributed to patient-related factors,[1] such as trauma history, current stressors and complex psychopathology. Many asylum seekers and refugees have been exposed to multiple, prolonged, interpersonal traumatic events such as war and human trafficking.[2] In addition, they have to handle the stress of forced migration, including involvement in legal procedures[3] and loss of their home country, cultural resources, family and social status.[4] Apart from post-traumatic stress disorder (PTSD),[5] they may experience comorbid symptoms including depression, anxiety and psychosis,[6] as well as symptoms sometimes referred to as complex PTSD.[7] In contrast, some clinicians argue that it is the treatment offered to refugees, rather than their potential to benefit from treatment, that leads to low treatment response,[8] and that refugees, like other adults with chronic PTSD,[9] should be treated with trauma-focused interventions. One way to examine treatment response in refugees is by comparing the effectiveness of different kinds of treatment in refugee samples. In recent years, randomised trials have shown promising effects for trauma-focused treatment in refugees.[10] Another way to examine treatment response is to compare the effectiveness of treatment in refugee samples and non-refugee samples. This has been done little, if at all. This study's aim is to compare traumatised asylum seekers and refugees' response to treatment as usual with that of another multiply traumatised population: patients affected by profession-related trauma (i.e. military veterans and police officers).

Method

Setting

Data were collected in Foundation Centrum '45, a Dutch mental health institute specialising in treatment of complex psychotrauma. Specific populations include asylum seekers and refugees, veterans of various peace missions, World War II resistance fighters and concentration camp survivors and their offspring, and police officers. Centrum '45 receives national referrals of patients who due to their psychosocial complexity cannot be treated in general mental healthcare or who have shown insufficient response to treatment in general mental healthcare. Treatment for PTSD (individually or in groups) generally consists of a combination of supportive therapy, pharmacotherapy and trauma-focused therapy -- particularly Eye Movement Desensitisation and Reprocessing Therapy (EMDR),[11] Narrative Exposure Therapy (NET)[12] and Brief Eclectic Psychotherapy for PTSD (BEPP).[13] As these three trauma-focused treatments are all evidence-based, choice

of treatment mainly depends on therapists' training. Art therapy, psychomotor therapy and music therapy are also offered, especially to patients who follow a clinical or day-clinical programme.

Assessments

In order to evaluate the effectiveness of treatment as usual, Centrum '45 has routinely administered assessments at intake and at end of treatment. Since 2007 a Routine Outcome Monitoring (ROM) assessment one year after intake has been added for all patient populations. Since its introduction, ROM response has increased from around 40% to 55%, in 2012. For several years, the Harvard Trauma Questionnaire (HTQ)[14] was used as a ROM instrument with refugees and for a shorter period also with non-refugee populations. The HTQ has been specifically designed for use with refugee populations. It is a self-report instrument that consists of two parts: one part on traumatic events and one part on symptoms of posttraumatic stress (specific to DSM-IV and additional symptoms reported by traumatised refugees). Symptoms are rated on a four-point scale ranging from 1 (*not at all*) to 4 (*extremely*). A mean score of 2.5 has been recommended as cut-off score for PTSD[14] although this recommendation has not been validated in a wide range of patient populations.

Sample

To answer our research question, we had a ROM dataset at our disposal that consisted of 577 patients who had completed assessments both at intake and one year after intake (with a range of 8 to 16 months). From this dataset, we excluded all partners and children of war-affected persons ($n=218$; primarily children of parents traumatised in World War II) because their reasons for seeking help, generally speaking, do not include PTSD. We then excluded all patients who at intake had not been administered the HTQ ($n=125$) but another instrument to assess PTSD (the Dutch Self-rating Inventory for Posttraumatic Stress Disorder, or ZIL).[15] As the final dataset contained only a small number of patients traumatised during World War II ($n=7$), we also excluded those patients. The final dataset consisted of 227 patients who had had their second assessment between March 2007 and April 2013. We divided the sample into three groups: asylum seekers/ temporary refugees (i.e. those who are still awaiting the decision on their asylum application and those who have obtained temporary refugee status, which may not be extended after five years), resettled refugees (i.e. those who have obtained permanent refugee status or subsequent Dutch nationality), and patients with profession-related trauma (i.e. military veterans and police officers).

Statistical Analysis

All analyses were performed using SPSS version 20.0 for Windows. Demographical and clinical characteristics were calculated, and chi-square and *t*-tests were conducted to check for demographical and clinical differences between the groups. For the HTQ, mean PTSD severity at intake (T1) and one year after intake (T2) was computed as well as was the difference between the two (PTSD symptom reduction). We checked HTQ variables for extreme outliers, but we found none. Missing data for the HTQ consisted of missing mean scores at T2 for 7 patients (2 asylum seekers/temporary refugees and 5 resettled refugees), and missing events scores at T1 for 42 patients (4 asylum seekers/temporary refugees, 34 resettled refugees and 4 professionals). We handled missing data by using pairwise deletion.

We conducted pair-wise *t*-tests to determine treatment response within each group, and calculated by hand the effect-sizes (eta squared). Following Cohen, we interpreted an eta squared of 0.01 to be a small effect, 0.06 was moderate, and 0.14 was large.[16] We set confidence intervals at 95%. To examine potential differences in treatment response between the three groups, we conducted repeated measures analysis of variance (ANOVA), using time as within-subjects factor and group as between-subjects factor. For the interaction effect, an effect-size (partial eta squared) of 0.01 was interpreted to be small, 0.09 was medium, and 0.25 was large.[16] To examine variables associated with treatment response in asylum seekers and refugees, we performed a multiple regression analysis with PTSD symptom reduction (HTQ score at T1 minus HTQ score at T2) as the dependent variable and demographic variables (sex, age, and no/temporary/permanent refugee status) and clinical variables (PTSD severity at T1, number of traumatic event types, and time between assessments) as independent variables.

Results

Demographic Characteristics

For demographic and clinical characteristics of the final sample, see Table 1. Because this study was observational, we found significant differences in demographic and clinical characteristics between the three groups for all variables. Asylum seekers/temporary refugees came predominantly from Afghanistan, Armenia, Iraq and Sierra Leone ($n = 3$, 14.3%, for each country); resettled refugees came predominantly from the former Yugoslavia ($n = 59$, 34.9%), Iraq ($n = 28$, 16.6%) and Afghanistan ($n = 22$, 13.0%); and patients who had profession-related trauma came predominantly from the Netherlands ($n = 33$, 89.2%). The traumatic events that the asylum seekers/temporary refugees most frequently reported were physical torture ($n = 17$, 81.0%), threat of physical torture ($n = 17$, 81.0%) and

117

Table 1.

Demographic and Clinical Characteristics of the Groups

	Asylum seekers/ temporary refugees (n=21)	Resettled refugees (n=169)	Profession- related trauma (n=37)	Analysis			
				χ^2	F	d.f.	P
Demographic characteristics							
Age in years, mean (s.d.)	36.1(10.4)	43.8(8.9)	44.5(8.6)		7.32	2	0.001
Male, n(%)	12(57.1)	123(72.8)	34(91.9)	9.47		2	0.009
Clinical characteristics							
HTQ score at intake, mean (s.d.)	3.14(0.35)	3.08(0.52)	2.80(0.53)		6.72	2	0.002
Number of traumatic event types (HTQ)[a], mean (s.d.)	13.9(4.0)	12.3(5.4)	9.3(4.6)		8.12	2	0.001
Time (months) between assessments, mean (s.d.)	12.1(1.7)	12.1(1.4)	10.6(1.5)		16.09	2	<0.001

HTQ, Harvard Trauma Questionnaire

[a] Experienced or witnessed

other life-threatening situation (n = 17, 81.0%). Resettled refugees most frequently reported being close to death (n = 135, 79.9%), other life-threatening situation (n = 125, 74.0%) and forced isolation from family (n = 123, 72.8%). Professionals most frequently reported other life-threatening situation (n = 34, 91.9%), combat situation (n = 34, 91.9%), serious injury (n = 31, 83.8%) and being close to death (n = 31, 83.8%).

Treatment Outcome

Figure 1 shows the results of the repeated measures ANOVA for the three groups. Mean PTSD symptom severity decreased from 3.13 (CI = 2.91 - 3.35) to 2.92 (CI = 2.65 - 3.20) for asylum seekers/temporary refugees; from 3.10 (CI = 3.03 - 3.18) to 2.88 (CI = 2.79 - 2.98) for resettled refugees; and from 2.80 (CI = 2.64 - 2.96) to 2.31 (CI = 2.11 - 2.51) for patients suffering from profession-related trauma. Paired-samples t-tests revealed a significant decrease in PTSD severity for resettled refugees (0.22, s.d. = 0.52, t(163) = 5.39, P < 0.001) and for professionals (0.49, s.d. = 0.64, t(36) = 4.65, P < 0.001), but not for the smallest group, asylum seekers/temporary refugees (0.21, s.d. = 0.59, t(18) = 1.53, P = 0.143). Effect-sizes for
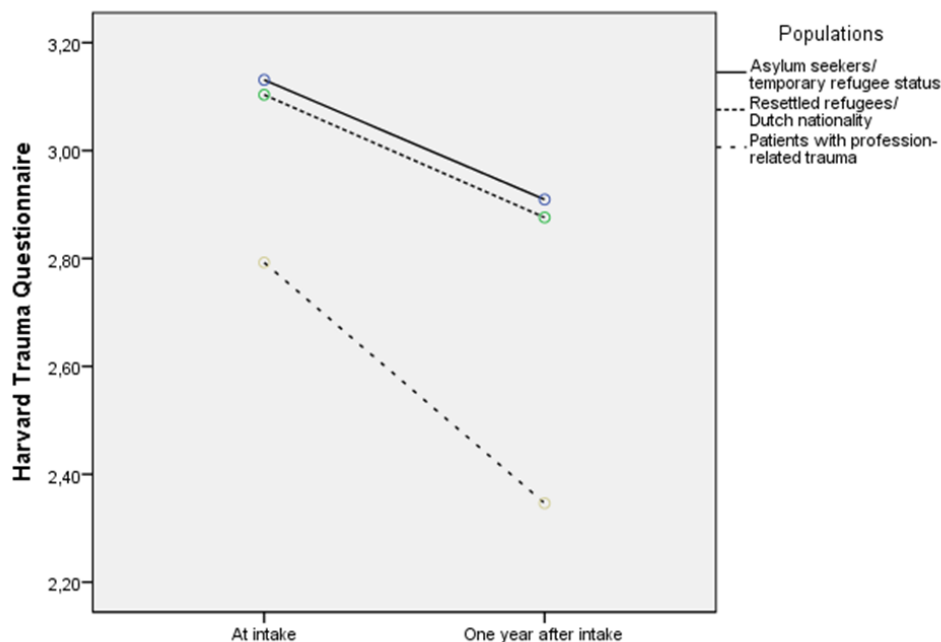
Fig. 1
PTSD Symptom Severity at Intake and After 1 Year

Table 2

Factors Associated With Reduction in PTSD Symptom Severity in Refugees

	B	CI	Beta	*P*
Demographic variables				
Sex	0.11	-0.07 - 0.29	0.09	0.238
Age	0.00	-0.01 - 0.00	-0.09	0.277
No vs. permanent refugee status	-0.03	-0.37 - 0.31	-0.01	0.872
Temporary vs. permanent refugee status	-0.14	-0.52 - 0.24	-0.06	0.464
Clinical variables				
PTSD symptom severity at intake (HTQ)	0.48	0.32 - 0.64	0.45	<.001
Number of traumatic event types (HTQ)	-0.01	-0.03 - 0.00	-0.11	0.157
Time (months) between assessments	-0.01	-0.06 - 0.05	-0.01	0.851

B, regression coefficient; Beta, standardized regression coefficient; HTQ, Harvard Trauma Questionnaire

treatment response in asylum seekers/temporary refugees and resettled refugees were moderate (eta squared 0.12 and 0.15, respectively); effect-size for patients with profession-related trauma was large (eta squared 0.38).[16] Repeated measures ANOVA showed a significant effect for time ($F = 32.27$, $P < 0.001$) with a medium effect size (partial eta squared $= 0.13$), and a significant interaction effect ($F = 3.65$, $P = 0.028$) with a small effect size (partial eta squared $= 0.03$).[16]

We then combined the two refugee groups and, using multiple regression analysis, we examined whether seven demographic and clinical variables were associated with PTSD symptom reduction (see Table 2). As shown in Table 2, refugee patients with more severe PTSD symptoms at intake had significantly stronger reductions in PTSD symptom severity after one year. The other variables were not significantly associated with PTSD symptom reduction. The percentage of variance explained by the model (R squared) was 21.5%.

Discussion

This study shows that asylum seekers/temporary refugees and resettled refugees experienced significantly less PTSD symptom reduction between intake and one year after intake than did a comparison group of multiply traumatised military veterans and police officers. However, greatest differences between groups were found in PTSD symptom severity at intake and one year after intake rather than in PTSD symptom reduction. Explorations of PTSD symptom reduction in refugees showed that those who had more severe symptoms at intake experienced significantly greater symptom reduction after one year; other variables (including

variables related to refugee status and number of traumatic events) were not related to symptom reduction.

The results show that despite specialised treatment being offered to refugees, treatment response can be limited, and PTSD severity frequently remains high. Possible explanations, and consequently clinical implications, might be threefold: patient-related, therapist-related, and treatment-related. As for patient-related factors, the multiple determinants of PTSD might influence refugees' ability to benefit from treatment. It is generally acknowledged that PTSD in refugees is influenced both by traumatic and current stressors, some (or many) of which may be beyond the patients' and therapists' control.[17] Following this explanation, clinicians and patients should have realistic expectations about what treatment may achieve in such a heavily traumatised and burdened population. Interventions that focus on improving quality of life rather than on further symptom reduction, such as Acceptance and Commitment Therapy,[18] might be useful for those patients who despite prolonged treatment continue to suffer from clinically significant PTSD. Clinicians sometimes suspect asylum seekers to exaggerate symptoms in order to remain in medical care and thereby increase the chance of obtaining a refugee status. We found no substantiation for this hypothesis of 'secondary gain' as in our study, not having a permanent refugee status was not associated with a decreased treatment response.

As for therapist-related factors, therapeutic skills that might suffice in trauma-focused treatment of other multiply traumatised groups might fall short in the treatment of refugees. Therapists might need more extensive training and supervision regarding choosing and staying with a treatment focus, categorising and selecting of target memories, and understanding and restructuring of trauma-related cognitions in order not to lose their way in the multitude of symptoms, memories and transcultural challenges. At the same time, therapists need to maintain a sense of being 'good-enough' to provide treatment to refugees with limited responsiveness.[19] Finally, regarding treatment-related factors, not all evidence-based treatments will work with all refugees. Therapists will need to explore non-response, and they may need to consult refugee patient populations themselves[20] to examine which treatment aims and techniques speak to refugees who insufficiently benefit from treatment as usual. In addition, novel approaches may be developed to enhance treatment response. Centrum '45 is currently exploring the feasibility of refugee treatment that focuses primarily on prolonged grief rather than on PTSD, and of intranasal oxytocin as a novel strategy to boost treatment response in refugees.[21]

While this study is valuable for comparing the effects of treatment as usual in refugee populations with those in a non-refugee population (which, to our

121

knowledge, has not been done before), it also has several limitations. First, a division of the asylum seeker group into asylum seekers and temporary refugees, and of the profession-related trauma group into military veterans and police officers would have been clinically meaningful but was not possible due to limited sample sizes for these groups. Second, some variables that might have shed light on differences in treatment response between the three groups (including comorbid disorders, the amount and content of treatment, change in refugee status and chronicity of PTSD) were not included in the dataset. Future studies should use a broader range of variables to more comprehensively assess predictors of refugees' treatment responses. Third, ROM assessments at our institute are completed by about 55% of patients, and findings might not generalize to our complete patient population, nor to traumatised refugees in general. Nevertheless, our study contributes to the debate on refugees' treatment response by showing that such is indeed relatively lower than that of multiply traumatised non-refugees.

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Author Contributions
JJtH and GS designed the method, planned and conducted statistical analyses and wrote the paper.

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123

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Part IV
Home

It ain't necessarily so.

(Porgy and Bess)

What screws up doctors when they are trying to [treat traumatised refugees] is that they take *too much* information into account.

(After Malcolm Gladwell, "Blink", 2005)

Chapter 7
Complex PTSD and phased treatment in refugees:
A debate piece

F. Jackie June ter Heide
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Abstract

Background
Asylum seekers and refugees have been claimed to be at increased risk of developing complex posttraumatic stress disorder (complex PTSD). Consequently, it has been recommended that refugees be treated with present-centred or phased treatment rather than stand-alone trauma-focused treatment. Research has been accumulating that may shed light on these claims.

Objective
The aim of this debate piece is to defend two theses: (1) that complex trauma leads to complex PTSD in a minority of refugees only, and (2) that with most refugees who experience PTSD, trauma-focused treatment is possible and effective.

Method
The first thesis is defended by comparing data on the prevalence of complex PTSD in refugees to those in other trauma-exposed populations, using studies derived from a systematic review. The second thesis is defended using conclusions of systematic reviews and a meta-analysis of the efficacy of psychotherapeutic treatment in refugees.

Results
Research shows that refugees are more likely to meet a regular PTSD diagnosis or no diagnosis than a complex PTSD diagnosis, and that prevalence of complex PTSD in refugees is relatively low compared to that in survivors of childhood trauma. Effect sizes for trauma-focused treatment in refugees, especially Narrative Exposure Therapy (NET) and Culturally Adapted Cognitive-Behaviour Therapy (CA-CBT) have consistently been found to be high.

Conclusions
Complex PTSD in refugees should not be assumed to be present on the basis of complex traumatic experiences but should be carefully diagnosed using a validated interview. Rather than recommending emotional stabilisation and resource development as a prerequisite for trauma-focused treatment, a course of trauma-focused treatment should be offered to all refugees seeking treatment for PTSD, including asylum seekers.

Keywords: posttraumatic stress, trauma, torture, prevalence, efficacy, ISTSS treatment guidelines, asylum seekers, ICD-11, Narrative Exposure Therapy, Culturally Adapted Cognitive-Behaviour Therapy.

Introduction

Many asylum seekers and refugees have fled their country of origin to escape the horrors of war, persecution, organised violence or torture. Based on these traumatic experiences, in the posttraumatic stress literature two claims are often made: first, that refugees are at increased risk of developing complex posttraumatic stress disorder (complex PTSD, e.g. Cloitre et al., 2009) and second, that refugees should be treated with present-centred or phased treatment rather than stand-alone trauma-focused treatment (e.g. National Institute for Clinical Excellence [NICE], 2005). While the psychological consequences of prolonged and extreme traumatisation have been subject of research and debate for several decades (e.g. Niederland, 1971), in recent years the subject has gained a new impetus. In 2012 the *ISTSS Expert Consensus Treatment Guidelines for Complex PTSD in Adults* (Cloitre et al.) were published, which address complex PTSD in refugees. Also, an official complex PTSD diagnosis has been proposed for inclusion in the 11th version of the International Classification of Diseases (ICD-11; Maercker et al., 2013) in 2017. In the last decade, research on refugee pathology and treatment has also been accumulating. Timing therefore seems right to debate the validity of the above claims. To this aim in this paper we formulate two theses: (1) that complex trauma leads to complex PTSD in a minority of refugees only, and (2) that with most refugees who experience PTSD, trauma-focused treatment is possible and effective. These theses we defend using the state-of-the art of research on complex PTSD and treatment in refugees. However, before we do so, we describe the central terminology used in the complex PTSD field (complex trauma, complex PTSD and phased treatment) as well as how the central assumptions of this field have been appraised.

Terminology

Research and treatment of complex PTSD centre around the hypothesis that complex traumatic experiences (complex trauma) lead to a posttraumatic syndrome (complex PTSD) that is clearly distinguishable from regular posttraumatic stress disorder (PTSD; American Psychiatric Organization, 2013). The terms 'complex trauma' and 'complex PTSD' are often used interchangeably, a practice which may lead to confusion. Courtois and Ford (2009) propose a clear distinction between complex trauma and complex PTSD, with complex trauma referring to complex traumatic experiences, and complex PTSD to complex posttraumatic symptoms. Although this use of terminology may be debated (e.g. Mooren & Stöfsel, 2015), in this paper we follow that distinction.

Complex Trauma

The experience of war has been a central element in the search for a distinction between relatively delineated traumatic events, such as a robbery, disaster or traffic accident, and more complicated traumatic events. This search mainly stems from the second half of the 20th century, when the psychological aftermath of WW-II was being explored (e.g. Eitinger, 1980). In the 90's, Terr (1991) and Herman (1992a, 1992b) broadened this search to include the experience of (domestic) violence in children and women. They suggested that a meaningful clinical distinction may be made between single traumatic events and repeated, prolonged, interpersonal traumatic events occurring in a context of totalitarian control. This clinical definition of complex trauma has since gone virtually unchanged, with the ISTSS guidelines for complex PTSD (Cloitre et al., 2012, p. 4) speaking of "exposure to repeated or prolonged instances or multiple forms of interpersonal trauma, often occurring under circumstances where escape is not possible due to physical, psychological, maturational, family/environmental, or social constraints". In ICD-10 (World Health Organization, 1992), complex trauma is referred to as catastrophic stress which "must be so extreme that it is not necessary to consider personal vulnerability in order to explain its profound effect on the personality" (F62.0). Many refugees, almost by definition, meet these definitions, having left their country of origin because of persecution, war, or organised violence (see www.unhcr.org).

Complex PTSD

Several diagnoses have been put forward to describe the psychological consequences of complex trauma, most notably complex PTSD (Herman, 1992a, 1992b), *Disorders of Extreme Stress Not Otherwise Specified* (DESNOS; Van der Kolk et al., 2005) and *Enduring Personality Change After Catastrophic Experience* (World Health Organization, 1992). Of these, DESNOS has been most extensively studied. DESNOS was originally intended as an independent DSM diagnosis consisting of six symptom clusters: alterations in regulation of affect and impulses, in attention or consciousness, in self-perception, in relations with others and in systems of meaning, and somatization. However, the DSM-IV (American Psychiatric Organization, 2000) Field Trials conducted to test the validity of the DESNOS construct did not substantiate the idea of an independent diagnosis, as only 4 to 6% of participants had DESNOS without PTSD (Van der Kolk et al., 2005). Consequently, in DSM-IV DESNOS symptoms were described as additional characteristics of PTSD but not included in any formal diagnosis. In DSM-5, several symptoms traditionally referred to as 'complex' have been incorporated into the regular PTSD diagnosis: persistent and exaggerated negative

beliefs or expectations about oneself, others, or the world; persistent negative emotional state; reckless or self-destructive behaviour; and depersonalization and derealisation (Friedman, 2013).

Existence of a clearly delineated complex posttraumatic syndrome has been more explicitly acknowledged in ICD than in DSM. ICD-10, to this date, contains the only formal diagnosis of complex PTSD, be it under a different name: Enduring Personality Change After Catastrophic Experience or EPCACE. EPCACE is characterised by a hostile or distrustful attitude toward the world, social withdrawal, feelings of emptiness or hopelessness, a chronic feeling of 'being on edge' as if constantly threatened, and estrangement. Patients cannot be diagnosed as experiencing both EPCACE and PTSD. More recently, a proposal for inclusion of a complex PTSD diagnosis in ICD-11 has been formulated in which complex PTSD may be diagnosed in addition to regular PTSD. Apart from PTSD criteria, this proposal consists of disturbances in emotion regulation, a diminished and defeated sense of self, and difficulties in maintaining relationships (Maercker et al., 2013). Although ICD is the dominant diagnostic system worldwide and therefore most likely to be used in transcultural research, not EPCACE but DESNOS has been examined in several studies with refugees, which we will describe later.

Phased Treatment

The clinical relevance of recognising the existence of complex PTSD in a patient is because the diagnosis is believed to merit a treatment plan that is different from that recommended by treatment guidelines for PTSD in adults (e.g. NICE, 2005). While treatment guidelines for PTSD in adults recommend trauma-focused treatment as a first-line intervention, the ISTSS guidelines for complex PTSD recommend the implementation of phased treatment. This consists of a first phase that focuses on safety, symptom reduction and skills training, a second phase that focuses on processing of traumatic memories, and a third phase that focuses on social and psychological (re-)integration. Stand-alone trauma-focused treatment is believed to carry a risk of psychologically overwhelming the patient and consequently of psychological decompensation (Herman, 1992b).

The theory of phased treatment for complex PTSD and its emphasis on safety and psychological decompensation has had a major impact on treatment for traumatised asylum seekers and refugees. For a long time the emphasis has been on protecting refugee patients from emotional overburdening through trauma-focused therapy. The NICE-guidelines (p. 120) state that:

> The first need is to achieve safety from further persecution. (…) It can be hard to confront trauma memories anyway, but if the PTSD sufferer faces a realistic prospect of being returned to face more trauma, then it can be impossible.

Describing the second phase of treatment in a refugee suffering from complex PTSD, Momartin and Coello (2006, p. 25) write:

> Because of the severe and complicated nature of the present case, exposure-based treatment, as advised by Luxenburg [Luxenburg, Spinazzola, Hunt, & Van der Kolk, 2001] was not used. Instead, close attention was paid for signs or accounts of dissociation, helping the patient in 'grounding' himself.

In other words, a deviation from treatment guidelines for PTSD by delaying or avoiding trauma-focused treatment has been quite actively proclaimed in the refugee literature.

Appraisal

In preparation for DSM-5, the central assumptions concerning complex PTSD have been extensively evaluated. On the one hand, a merit of the complex PTSD construct is that it has drawn attention to posttraumatic symptoms of survivors who are relatively out of the public eye, such as maltreated children and victims of domestic violence. This has contributed to an extension of the DSM-5 PTSD diagnosis to the 20 symptoms that it consists of now, enabling clinicians to diagnose and treat a wider range of survivors who might otherwise not be recognised as experiencing PTSD. The model of phased treatment has contributed to an examination of the possibility of harm in PTSD outcome studies, something that is now routinely recommended (Ioannidis et al., 2004). On the other hand, as shown above, little clarity has yet been reached on the relationship between PTSD and complex PTSD, with complex PTSD having been diagnostically separated from PTSD in ICD-10, added to PTSD in ICD-11 and incorporated into PTSD in DSM-5. Neither has agreement been reached on which specific traumatic events or conditions constitute a risk factor for development of complex PTSD. Finally, treatment outcome research of complex PTSD has been criticised for insufficiently distinguishing between complex traumatic events and complex posttraumatic sequelae. In depth evaluations of the complex PTSD literature may be found in Resick et al. (2012) and Landy, Wagner, Brown-Bowers and Monson (2015). We now turn to the two central theses of this paper.

Theses

I. Complex trauma leads to complex PTSD in a minority of refugees only.
As noted in the introduction, there is a tendency in the complex PTSD literature to equate complex trauma and complex PTSD. As Courtois (2004, p. 412) states: "Complex trauma generates complex reactions." While it is known that potentially

traumatic events lead to regular PTSD in a minority of cases only (e.g. Kilpatrick et al., 2013), if the statement regarding complex trauma is correct, we would expect a high prevalence of complex PTSD in refugee populations. Cloitre and colleagues (2009, p. 406) modify this expectation by hypothesizing complex PTSD to be as prevalent in refugees as in survivors of childhood trauma:

> Studies of [refugee survivors of torture, political persecution, war zones, or concentration camps] might show equally powerful effects for adult and childhood cumulative trauma. Indeed, adulthood traumas of sustained nature such as living in a war zone create a life condition that increases risk of exposure to a multiplicity of types of traumatic events (e.g., actual or threat of injury, sexual assault, witnessing injury or death to others) and the accumulation of such experiences would be expected to increase risk for symptom complexity.

The question is whether research supports this hypothesis.

To examine this, we used studies yielded by a systematic search conducted for a meta-analysis of prevalence of complex PTSD in traumatised populations (Ter Heide, Smid, Mooren, & Kleber, in preparation). In this meta-analysis, only studies using a comprehensive instrument to assess complex PTSD were included, which is currently limited to the Structured Interview for Disorders of Extreme Stress Not Otherwise Specified (SIDES; Pelcovitz et al., 1997), which assesses DESNOS. Our search yielded five studies on prevalence of complex PTSD in refugees: three studies of treatment-seeking populations and two of non treatment-seeking populations (one of which of refugees hosted in their own region of origin; see Table 1).

Table 1 shows the different associations between complex PTSD and PTSD which we described in the introduction: some studies examine the co-occurrence of complex PTSD and PTSD, while some examine the two conditions separately. The column 'CPTSD total' shows the total number of participants who met a complex PTSD (DESNOS) diagnosis with or without PTSD, the column 'PTSD total' shows the total number of participants who met a PTSD diagnosis with or without complex PTSD, and the column 'CPTSD plus PTSD' shows the number of participants from the previous two columns who met both diagnoses. The first three studies provide the highest level of evidence by using the validated, clinician-rated version of the SIDES. We will look at these studies first.

First, these three studies show that refugees, both treatment-seeking and non-treatment-seeking, are much more likely to meet a PTSD diagnosis or neither diagnosis than to meet a diagnosis of complex PTSD (DESNOS). This does not necessarily mean that, in the words of Courtois, complex trauma does not generate complex reactions in refugees, but that in refugees these reactions are unlikely

Table 1

Current Prevalence of Complex PTSD in Refugees

Publication	Sample	CPTSD instrument	PTSD instrument	N	CPTSD total, n (%)	PTSD total, n (%)	CPTSD plus PTSD, n (%)
De Jong, 2005	Eritrean refugees living in temporary shelters in Ethiopia	SIDES	CIDI	1200	26(2.2)	190(15.8)	missing
Teodorescu, 2012	Treatment-seeking refugees resettled in Norway	SIDES	SCID-I	61	10(16.4)	50(82.0)	9(14.6)
Weine, 1998	Bosnian refugees resettled in the US	SIDES	PSS	24	0(0)	10(41.7)	0(0)
Palic, 2014	Treatment-seeking Bosnian refugees resettled in Denmark	SIDES-SR	none	116	39(33.6)	n.a.	n.a.
Teegen, 2002	Treatment-seeking refugees resettled in Germany	SIDES-SR	PCL-C	33	22(66.7)	31(93.9)	missing

(C)PTSD, (complex) post-traumatic stress disorder; SIDES(-SR), Structured Interview for Disorders of Extreme Stress (self-report);
CIDI, International Diagnostic Interview; SCID-I, Structured Clinical Interview for DSM-IV Axis-I; PSS, PTSD Symptoms Scale;
PCL-C, PTSD Checklist for DSM-IV

to be captured by a complex PTSD diagnosis. In other words: a classification of refugees in general as suffering from complex PTSD based on their experiences alone is not supported by the data.

Second, we used data from the first three studies to examine the hypothesis that complex PTSD may be as prevalent in refugees as in survivors of childhood traumatic experiences. Prevalence of complex PTSD after childhood trauma has only been examined in treatment-seeking samples. We therefore compared the treatment-seeking refugee sample (Teodorescu et al., 2012) with other samples seeking treatment for psychotrauma-related reasons (see figure 1; the study descriptions state first author, sample size and sample type).
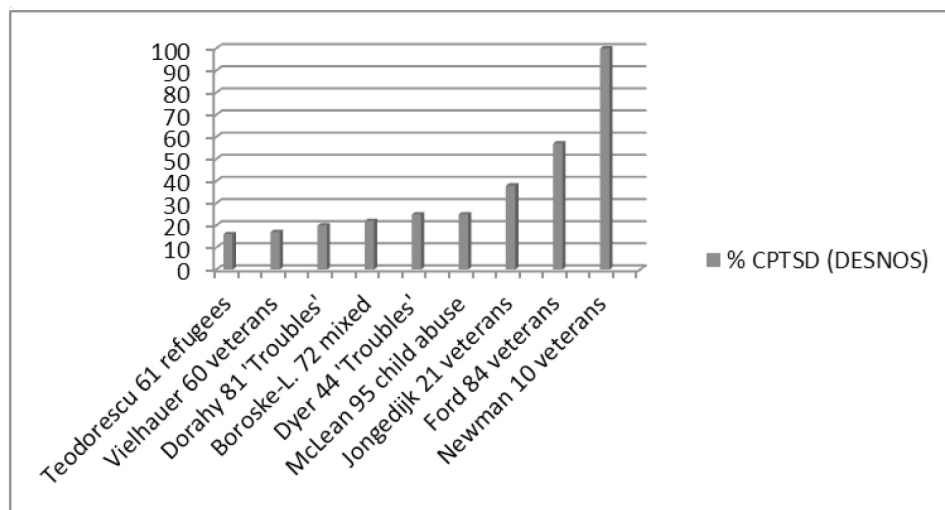
Fig. 1 Complex PTSD in treatment-seeking samples

Visually, this comparison shows that total complex PTSD prevalence (i.e., with or without comorbid PTSD) is lowest in the refugee sample.

The one study addressing childhood sexual abuse is the study by McLean, Toner, Jackson, Desrocher, and Stuckless (2006), with a total complex PTSD prevalence of 25% (compared to 16% in refugees). Data obtained in the DSM-IV Field Trial (Van der Kolk, Roth, Pelcovitz, Sunday, & Spinazzola, 2005) may also serve as a meaningful comparison. Most, but not all, of the participants in the DSM-IV Field Trial were treatment-seeking, and they were divided into three groups: survivors of early onset abuse, of late onset abuse, and of disasters. As data from this study are limited to prevalence of 'complex PTSD plus PTSD', this study was not included in Figure 1. When compared to the DSM-IV Field Trial participants, the prevalence rate of 15% found in treatment-seeking refugees is

comparable to that found in survivors of late onset abuse (18%), but lower than that found in survivors of early onset abuse (24%) and higher than that found in survivors of disasters (3%). In other words, these limited data do not confirm the hypothesis that treatment-seeking refugees are at equal risk of having complex PTSD as treatment-seeking survivors of childhood trauma.

Third, we return to the non-treatment-seeking refugee samples (De Jong et al., 2005 and Weine et al., 1998). To place their prevalence rates into perspective, we compare them to prevalence rates from other trauma-exposed, non-treatment-seeking samples (Figure 2).
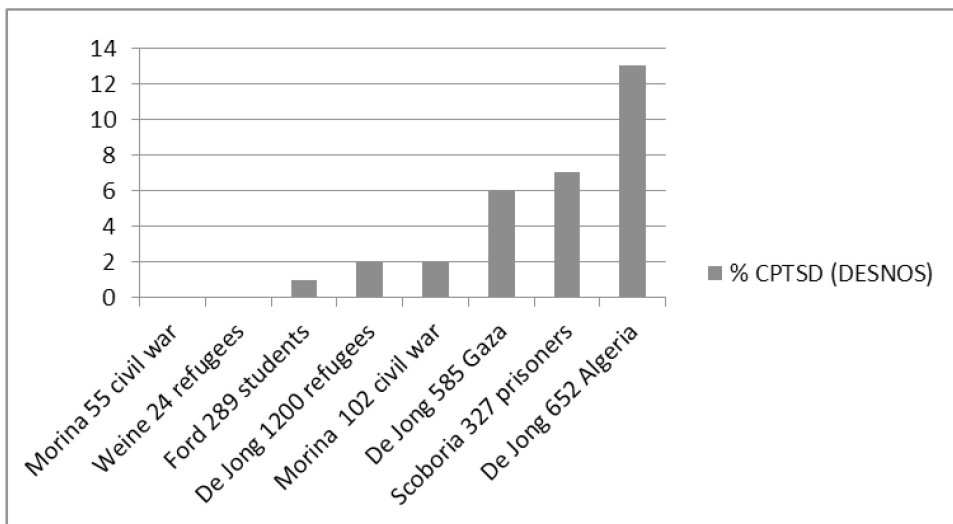
Fig. 2 Complex PTSD in non-treatment-seeking samples

Like the studies in Figure 1, these rates concern prevalence of complex PTSD with or without PTSD. Again, the refugee studies are amongst the studies with the lowest complex PTSD prevalence, indicating that being a refugee carries no increased risk of a complex PTSD diagnosis.

Last, two of the refugee studies in Table 1 used an unvalidated self-report version of the SIDES. While these studies point towards a higher prevalence of complex PTSD in treatment-seeking refugees, studies using self-report only have been shown to result in overestimation of prevalence rates of up to 50% (Richardson, Frueh, & Acierno, 2010), and results would therefore need to be confirmed using a clinician-rated instrument.

In conclusion, the limited evidence that is currently available points to a complex PTSD diagnosis in only a minority of refugees. While prevalence of complex PTSD in treatment-seeking refugees appears higher than in non-

treatment-seeking refugees, it does not appear to reach as high a prevalence as in other treatment-seeking populations, including patients who have experienced childhood trauma. Clinically, this implies that complex PTSD in refugees should not be assumed to be present on the basis of traumatic experience but should be carefully diagnosed using a validated interview. In addition, there is a need for studies that use clinician-rated interviews to determine if specific refugee populations, such as former child soldiers or survivors of sexual exploitation, are at increased risk of developing complex PTSD in comparison to general refugee populations.

137

II. With most refugees who experience PTSD, trauma-focused treatment is possible and effective.

As stated earlier, phased treatment is often recommended for refugees who experience PTSD, as stand-alone trauma-focused treatment is feared to carry a risk of psychologically overwhelming refugee patients (e.g. Nickerson, Bryant, Silove, & Steel, 2011). In clinical practice, this recommendation has led to extensive or exclusive stabilisation of refugee patients. Recommendations for phase-based treatment are currently experience-based as no randomised controlled trials (RCT's) of phase-based treatment have been conducted in refugees. However, the evidence supporting the safety and efficacy of trauma-focused treatment in refugees has been accumulating.

Randomised research into the efficacy of refugee treatment has only started at the turn of the century. In the first systematic review on psychological treatment of PTSD in adult refugees (Nicholl & Thompson, 2004), only one RCT was mentioned which compared the efficacy of exposure therapy and cognitive-behaviour therapy (CBT) – both of which were found efficacious (Paunovic & Öst, 2001). Great impetus has since been provided by two research groups: one that has yielded numerous trials of Narrative Exposure Therapy (NET; Schauer, Neuner, & Elbert, 2005), and one that has yielded several trials of culturally adapted CBT (CA-CBT; Hinton, Rivera, Hofmann, Barlow, & Otto, 2012). In recent years, numerous systematic reviews and meta-analyses have appeared which draw conclusions on treatment of traumatised refugees. Increasingly these point to the efficacy of trauma-focused treatment. In the first review of NET, Robjant and Fazel (2010, p. 1030) conclude that: "Emerging evidence suggests that NET is an effective treatment for PTSD in individuals who have been traumatised by conflict and organised violence, even in settings that remain volatile and insecure." This statement is echoed in a systematic review by Mørkved et al. (2014) who recommend NET over prolonged exposure therapy in asylum seekers and refugees.

A systematic review by Nickerson, Bryant, Silove and Steel (2011) looks

beyond NET to the efficacy of trauma-focused interventions (NET, exposure, CBT and CA-CBT) and multimodal treatment in refugees. Although acknowledging methodological shortcomings, they conclude that the evidence points to efficacy of trauma-focused interventions only, noting that (p. 407)

> Most of the randomized controlled trials reviewed here reported large effect sizes in relation to PTSD symptom reduction following a trauma-focused treatment. (…) effect sizes of greater than 1.5 were common. This corresponds to a 70% or greater non-overlap of the treated group's scores with the scores at baseline.

Recently, the efficacy of trauma-focused treatment in refugees was subject of a meta-analysis by Lambert and Alhassoon (2015). They used the between-groups effect-sizes of trauma-focused treatment (NET, CA-CBT and Eye Movement Desensitization and Reprocessing therapy (EMDR, Shapiro, 2001) versus control groups to calculate an aggregate effect size. They found a large effect size for trauma-focused treatment in refugees, both with regards to PTSD (Hedge's g = .91, p < .001, 95% CI [.56, 1.52]) and depression (Hedge's g = .63, p < .001, 95% CI [.35, .92]). These large effect sizes are chiefly based on NET and CA-CBT, with limited evidence for EMDR (Acarturk et al., 2015; Ter Heide, Mooren, Kleijn, De Jongh, & Kleber, 2011; Ter Heide, Mooren, Knipscheer, & Kleber, 2014). In summary, contrary to suggestions in the complex PTSD literature current evidence supports the efficacy of trauma-focused treatment, especially NET and CA-CBT, in refugee samples.

The recommendation of phased treatment is thought to most strongly apply to refugees who live in unstable social settings, such as asylum seekers, whose refugee claim is still under consideration, and refugees who are hosted within their own region of origin rather than in western resettlement countries. While this social instability really constitutes a different kind of complexity than that captured in the complex PTSD construct, the two kinds of complexity are often equated, as in the ISTSS guidelines for complex PTSD. What is the evidence for trauma-focused treatment in these groups? The meta-analysis by Lambert and Alhassoon contains five studies that included refugees in unstable settings: two of NET with Sudanese, Rwandan and Somalian refugees hosted in Uganda (Neuner, Schauer, Klaschik, Karunakara, & Elbert, 2004; Neuner et al., 2008), and two of NET (Neuner et al., 2010; Stenmark, Catani, Neuner, Elbert, & Holen, 2013) and one of EMDR (Ter Heide, Mooren, Kleijn, De Jongh, & Kleber, 2011) with asylum seekers hosted in Western Europe. All NET studies showed large effect sizes for PTSD symptom reduction from pre-treatment to follow-up assessment (Hedges' g of 1.6, 1.4, and 1.6 for regional refugees in Neuner et al., 2004, 2008 and 2010 respectively; and Hedges' g of 0.93 for asylum seekers in Stenmark et al., 2013). In

the EMDR study, which does not give effect sizes for asylum seekers separately, it was stated that asylum seekers and those with a refugee status had an equal chance of dropping out of treatment. In other words: there is currently no evidence that shows that refugees in unstable settings and asylum seekers are unable to benefit from trauma-focused treatment and that with these groups, trauma-focused treatment should therefore be avoided or delayed.

On the basis of these findings it may be concluded that the recommendations in the ISTSS guidelines (p. 7) for "sequential or phase-based treatments in which emotional stabilization and resource development occur before trauma memory processing" in refugees are premature and potentially inadvertently misleading. There is no randomised research on the efficacy of treatment of complex PTSD symptoms (problems in emotion-regulation, self-image and interpersonal relations) or of phase-based treatment in refugees. There is accumulating evidence that supports the efficacy of trauma-focused treatment in refugees. While not all refugees may wish to undergo trauma-focused treatment (e.g. Morris et al, 1993) and not all refugees may benefit equally (Schottenbauer, Glass, Arnkoff, Tendick, & Gray, 2008), there is no indication that complex PTSD symptoms predict refusal, dropout or non-response to trauma-focused treatment in refugees and that an initial or additional focus on complex PTSD symptoms is therefore necessary. Those refugees who are reluctant to participate in primarily exposure-based treatment such as NET may benefit from CA-CBT which provides a combination of skills training and exposure. Whether phased treatment in refugees leads to greater acceptability, lower drop-out and higher efficacy than trauma-focused treatment *per se* is a matter of great interest. However, with the current state of research it is more accurate to recommend a course of trauma-focused treatment for all refugees seeking treatment for PTSD, including asylum seekers, than to recommend emotional stabilisation and resource development as a prerequisite for trauma-focused treatment.

Conclusion

All clinicians and researchers working with refugees, regardless of whether or not they endorse the concepts of complex PTSD and phased treatment in refugees, strive to alleviate suffering in this highly burdened group of patients. What this paper aims at is not so much polarising the debate as encouraging careful diagnostics of traumatised refugees while discouraging the practice of long-term stabilisation in refugees who are perceived as too vulnerable for trauma-processing. This paper is an invitation to further debate and we look forward to any response that promotes helpful diagnostics and treatment for traumatised refugees.

Author Contributions
JJtH, TM and RK planned the study; JJtH conducted research; JJtH, TM and RK wrote the paper.

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145

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Chapter 8 Discussion

"The more global, the more complex it gets"
(Mikael Palmquist, IKEA regional manager of retail for Asia Pacific)[1]

Home

I have always been fascinated by a brand like IKEA, that sells furniture and things for the home all over the word. What is it about IKEA that millions of people, regardless of where they live, like to sit on an IKEA couch or eat from an IKEA plate? If anything is both highly personal and highly culturally determined, it is how we like to decorate our home. Nevertheless, IKEA thrives by creating things that are liked by people all over the world, regardless of cultural background.

What IKEA does really well, transculturally, is three things. First, it is 'relentless in its focus on design', or, in other words, on designing products that function and look well, are easy to use and cheap, without compromising any ethical values. Second, researchers at IKEA find out all they need to know about their transcultural customers because they 'study the market intensely'. Finally, the company is 'awfully good at showing how the same product can mesh with different regional habitats'.

It seems a long way from IKEA to refugees but actually it is not. In collaboration with the UNHCR, IKEA has been involved in designing temporary shelters for refugees. These shelters, like all IKEA furniture, are flat packed and fit into two boxes with all parts and tools included. They can be disassembled and reused, and are safe, healthy and comfortable to live in. The field of refugee psycho-trauma too needs something like that. A treatment that is easy to convey and implement, and that is acceptable, safe and effective with traumatised refugees. In this discussion we take some inspiration from IKEA while we return to our main research question on the safety and efficacy of EMDR with traumatised asylum seekers and refugees. But before we do that, let's take a short look at what we found.

General Summary

In chapter 1 we stated the aims of this thesis: to examine the safety and efficacy of EMDR with refugees; to examine the applicability of the complex PTSD construct to traumatised refugees; and to examine the safety and efficacy of trauma-focused treatment with refugees. In chapter 2 we concluded that while the acceptability, safety and efficacy of EMDR with refugees are matters of interest, very little

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[1]   All quotes on IKEA are taken from the Fortune article "How Ikea took over the world" (March 15, 2015), retrieved from http://fortune.com/ikea-world-domination/

research in this area has been done and a randomised controlled trial of EMDR with refugees is direly needed. In chapter 3 we reported on a pilot study of such a trial. We concluded that the research protocol was feasible and that EMDR appeared safe and efficacious enough to warrant the conduct of a full randomised controlled trial. In chapter 4, it turned out that EMDR was as safe but not as effective as we had hoped. We hypothesised that this might be related to study design (a small number of sessions), participants (complex problems) or treatment (limited cultural sensitivity). In the next two chapters we set about checking some of these hypotheses. In chapter 5 we found that rather than to transcultural or trauma-related variables, treatment-response in refugee participants was related to depressive symptom severity and diagnosis. In chapter 6 we concluded that treatment-response in refugees does not much differ from that in patients with profession-related trauma, but that rather it is higher PTSD-symptom severity at both intake and after one year that gives the impression that refugees might be difficult to treat. In chapter 7 we summarised the studies of researchers who were interested in the same topic areas as we: complex PTSD and trauma-focused treatment in refugees. We argued that the construct of complex PTSD is limitedly applicable to refugees and that current research supports a recommendation of trauma-focused rather than phase-based treatment in refugees who seek treatment for PTSD. We now turn our focus to EMDR with refugees.

The urgency to study EMDR in refugee patients was, and is still, high (De Jong, Knipscheer, Ford, & Kleber, 2014). Globally, the number of refugees has risen to an all-time high with 59,5 million people forcibly displaced by the end of 2014 (www. unhcr.org). EMDR is popular with trauma-focused therapists and is currently the most widely practiced trauma-focused treatment in the Netherlands (Van Minnen, Hendriks, & Olff, 2010). Can refugees resettled in western countries be helped by EMDR?

In this thesis, we found EMDR to be safe and limitedly efficacious with refugees. What are the implications of our findings? What did we do well, and what would we do differently next time? These issues are related to treatment, participants and study design. We will discuss these in turn.

EMDR with Traumatised Refugees: Treatment
In this thesis, we found EMDR to be safe with refugees. Forty percent of the participants showed clinically significant change after EMDR. However, no differences in efficacy were found between EMDR and stabilisation. To return to the metaphor in chapter 1: EMDR and stabilisation did equally well in cleaning clothes. Neither tore the cloth. However, while some clothes got cleaned quite well,

overall the clothes did not get as clean as we had hoped.

Clinically, this implies that early EMDR (i.e., straight after the intake interview) may be useful to some refugees but perhaps not to everyone. There may be differences in treatment-response between different refugee patients. Some refugees may benefit from EMDR very early in the treatment process. Others may do better when they start with stabilisation. Some clothes might benefit from washing in higher temperatures. Some clothes might be delicate and may need to be hand-washed rather than machine-washed. A lot more research of EMDR with refugees is needed to know under what circumstances EMDR will perform best. In the meantime, EMDR practitioners do well to carefully read the label and follow what it says.

What can EMDR practitioners learn from IKEA's relentless focus on design? First, that it is incredibly important that EMDR is 'easy to use' for both practitioners and refugee patients. Language and requests in the EMDR protocol should be easy to understand. With refugees, the EMDR protocol should be brought down to the absolute essentials. It would be worth considering using the children's protocol with refugees. EMDR case conceptualisation should clearly guide practitioners in selecting the most relevant target out of the multitude of traumatic experiences that most refugees have been through. Training, intervision and supervision are vital in this respect. Rather than asking the patient to superficially go through and cluster all relevant experiences, the therapist might need to take time to listen to the patient and see which experience keeps popping up (Ter Heide & Oppenheim, in press).

Second, EMDR, like other trauma-focused treatments, might need to pay more attention to how a western treatment may 'mesh with different regional habitats'. It is well-known that patients from non-western backgrounds may differ vastly from their western therapists in terms of psychological functioning. This goes beyond differences in mental health to differences in how we perceive our experiences, ourselves, others, and the world (e.g. Kleber, 1995; Hinton & Lewis-Fernández, 2011). Jobson (2009) posits that in collectivistic cultures, the meaning of traumatic experiences is shaped by constructs such as relatedness, family and community; in individualistic cultures, constructs such as autonomy and self may determine the meaning of traumatic experiences. This is relevant to EMDR treatment which involves selecting a central traumatic memory and verbalising how this memory has changed one's perception of oneself. Can a western therapist fully empathise with what constitutes the most traumatic memory for a refugee patient? Does a framing of meaning in terms of "I am…" suffice? Clearly, this is important not just to EMDR practitioners but to any practitioner providing trauma-focused treatment to refugees.

Third, it's really important to know what it is that makes EMDR work. I once saw a refugee patient who had been abducted and forced to commit atrocities. I took her through the EMDR protocol and asked her what made the traumatic image disturbing to her now ("I am guilty") and what she would prefer to believer about herself ("I did what I could"). She later told me that this verbalising of cognitions was really helpful to her.

What is it that makes EMDR work? Is it the eye movements? Is it the structured protocol that tells a patient what to do and what to ignore? Is it the verbalising of negative and positive cognitions? Is it the release of emotions? Surely these elements must all play a part - some more than others, in one patient more than in another. In recent years, research on what makes EMDR work has focused strongly on the issue of eye movements and bilateral stimulation. While there is strong evidence that taxing of the working memory plays a role in desensitisation of traumatic memories (Van den Hout & Engelhard, 2012), other working mechanisms such as stimulating a relaxation response may also play a part (Shapiro & Solomon, 2015).

There is a lot going on during EMDR with refugees. The protocol is long. Some refugee patients do not understand it. It needs to be translated by an interpreter. The eye movements may cause severe headaches. The therapist may try auditory stimulation. It reminds the patient of a grenade. The patient gets upset. The interpreter feels sorry. A treatment session such as this is far removed from an EMDR session with a western patient. For therapists and refugee patients to know what is essential is really important, so they can decide what to focus on and what to ignore.

EMDR With Traumatised Refugees: Patients

Then again, it may go really well. It is important to remember that our study was conducted at an institute that receives referrals of refugee patients who cannot be treated elsewhere, because of prior low treatment-response or because they are considered too complex for treatment elsewhere. Many refugees who suffer from PTSD may be successfully treated with EMDR elsewhere, and they are never referred to us.

What is it that makes the refugees who are referred to our institute, complex? In chapter 7, we concluded that the applicability of the complex PTSD construct to refugees is limited. This does not mean that many refugees are not complex patients. However, the complexity of refugee patients seems better explained by 'complex stress' than by 'complex PTSD'. While such a perception of refugees is not new (e.g. Drožđek & Wilson, 2004), in recent years the evidence supporting it has reached a new level. A publication that has been invaluable in

this respect is the meta-analysis by Steel and colleagues (2009) on predictors of PTSD in refugees. This paper showed that torture explains 23.6% of variance in PTSD prevalence, followed by cumulative exposure to potentially traumatic events (10.8%), time since conflict (10%) and level of political terror in the country of origin (3.5%). In other words, this paper supports the assumption that PTSD in refugees is influenced by both posttraumatic stress and post-migration stress.

Clinically, this implies that EMDR practitioners, like IKEA, should have a clear understanding of what the customer needs before advising EMDR. Sometimes, as the Danes say, "the eye of the master does more than his two hands." Refugees with PTSD may seek relief from their mental distress but may not necessarily see traumatic experiences as a central cause of this distress (e.g. Summerfield, 1999). Neither may they necessarily see trauma-processing as essential to their recovery (e.g. Morris et al., 1993). In our study we saw several refugees who met criteria for PTSD but who were much more interested in improving their living conditions or their physical health. More research is needed to determine which diagnoses and which stressors are important for treatment-seeking refugees so treatment can be adapted accordingly.

The one assumption that was not supported by the publication by Steel and colleagues is that legal factors too influence PTSD rates in refugees. Legal factors also were not a predictor for treatment response in our trial. Refugees and asylum seekers benefited equally from treatment. The first predictor that we did find, is that refugees with more severe depressive symptoms benefited less from treatment. This makes clinical sense for EMDR, where patients' working memory needs to be taxed in order for the treatment to be effective. A second predictor we found is that patients with more severe PTSD benefit more from treatment. This also makes sense – if you're at the bottom, the only way is up. A combination of these two predictors implies that patients who suffer from both severe depression and severe PTSD may be the most complex, in the sense that they suffer the most and are the most difficult to treat.

Our study is one of a number of recent studies that have examined the validity of clinical predictors for PTSD treatment outcome. Lack of refugee status, psychotic disorder and substance abuse are all traditionally perceived as contraindications for trauma-focused treatment and as exclusion criteria in PTSD outcome studies. However, recent studies have shown that patients who meet these criteria are able to benefit from trauma-focused treatment (e.g. Mills et al., 2012; Van den Berg et al., 2015; Van Minnen, Harned, Zoellner, & Mills, 2012). The clinical relevance of this cannot be overestimated. Patients who are clinically perceived as complex are better able to recover from PTSD than previously thought.

EMDR With Traumatised Refugees: Design

Getting any randomised trial done, regardless of context, is a feat in itself. Both clinicians and patients may refuse or undermine participation in a trial for a multitude of reasons, such as concern for patients by the clinician and concerns about information and consent by the patient (Ross et al., 1999). In a refugee setting, things may get even more complicated. In our study, some patients left the country and as such, the trial, to seek asylum elsewhere. Some patients, even at consecutive assessments, could not remember that they were taking part in a trial. Some patients' stories about their life experiences turned out to be not entirely truthful. A trial such as we have done, of trauma-focused treatment with a considerable number of refugee participants treated at a single institute, has not been done before.

There is a reason why randomised controlled trials in refugee mental health care are rare. As Carlsson and colleagues state, "Paradoxically, well-established ethical, methodological, and resource-related concerns about undertaking research [in refugee populations] has meant that major areas of contention about treatment approaches cannot be resolved, primarily because the protagonists are unable to draw on sound empirical data to arbitrate between competing claims" (p. 631). Worry over the welfare of refugee patients may have something to do with this. At the Rehabilitation and Research Centre for Torture Victims in Copenhagen in 1986 care was taken "not to remind survivors of their past traumatic experiences" (McIvor & Turner, 1995, p. 707). This policy has continued well into the 21st century (Başoğlu, 2006). What is this culture of reluctance related to? Deighton, Gurris and Traue (2007) mention six hindrances to trying trauma-focused treatment with torture survivors. The first three are related to the patient: patient reservations (such as fear of information leaking to others), patient symptoms (such as preference to bring up other problems), and therapeutic relationship (such as missing sessions). The last three are related to the therapist: therapist insecurity (such as to being advised not to work through the trauma), fear of hurting the patient (such worries about overburdening or retraumatising the patient), and unfavourable conditions (such as asylum proceedings). Our trial shows that refugee patients and therapists need not be so worried.

Transcultural psychiatric principles, paradoxically, also play a role in slowing down research in refugee institutes. Transcultural psychiatry provides guidelines for conducting valid research with non-western participants. As Bhui and Bhugra state, "it is imperative to question the inherent assumptions about validity in the development of a cross-cultural research study" (2001, p. 7). Measurement validity refers to the extent to which researchers measure what they intend to measure for a particular setting, population and purpose (e.g. Van

Ommeren, 2003). However, measurement validity is a difficult issue with refugee patients treated at western institutes. Refugee patients come from all over the world. They speak very little Dutch, or are fluent. Diagnostic instruments may or may not be available in the language that the patients speak. They may or may not measure what's particularly important to refugees. The reality of working with traumatised refugees may serve as an obstacle to designing a valid study. As more treatment outcome studies with refugees are being conducted, it is important to develop guidelines for measurement validity in such contexts that are both transculturally considerate and realistic. Although it may be a cultural loss that people all over the world are sitting on IKEA chairs, at least they have something to sit on. As Van Ommeren (2003, p. 377) states: "A study certainly does not have to be highly valid in every regard to be valuable or useful."

While we conducted a useful study, looking back, what could we have done better? The APA, when testing a new treatment, advises a hierarchy of study designs, starting from case studies to pilot studies and full randomised controlled trials (APA Presidential Task Force on Evidence-Based Practice, 2006). Safety and efficacy are estimated at each level of the hierarchy. This is comparable to IKEA's 'relentless focus on design'. When we designed our pilot study and trial, several case reports of EMDR with refugees had been published (Ter Heide, Mooren, Knipscheer, & Kleber, 2014). While these publications showed that EMDR can be successfully used with refugees, they failed to zoom in on the treatment process. How many preparatory sessions do therapists generally use before starting with EMDR? How many EMDR sessions are needed for satisfactory PTSD reduction in a refugee patient? How do patients respond following each EMDR session – does PTSD symptom severity gradually go down, or is there an initial non-response or even increase in symptoms that is reverted after a number of sessions (e.g. Foa, Zoellner, Feeny, Hembree, & Alvarez-Conrad, 2002; Nijdam, Gersons, Reitsma, De Jongh, & Olff, 2012)? It would have been, and still is, very useful to conduct case studies and naturalistic outcome studies that may answer these kinds of questions.

Another thing that was lacking in our design was a qualitative element (Dattilio, Edwards, & Fishman, 2010). Why did we not ask patients what their needs and preferences were? One thing that has been invaluable to me as a therapist was following patients throughout the trial. I read dozens of intake interviews and conducted numerous assessments. It has helped me to better understand how people's lives are shaped by politics (Brom & Witztum, 1995) and what refugees really ask for in treatment. One of the pleasures of working with refugees is their wonderful use of language and metaphors. A refugee patient in a qualitative study by Gilkinson (2009) provides an example:

"You've been camping, you need some rest, you're coming from extreme

cold, you need to spend some time by the fireplace. If you're between people, for instance flatmates, they forget completely you're coming from extreme cold, and they expect you to go and do the gardening. It doesn't help. But if there is one person in the home that knows how cold it was outside, and just to know that, that will be helpful" (p. 161; language edited by the current author).

This one person in the home, in this case, was the patient's therapist. Therapists and researchers working with refugees need patients to help them understand what's helpful in treatment.

Conclusion

Central aim of this thesis was to contribute to an improvement of mental health care offered to refugees who suffer from PTSD. PTSD is a debilitating disorder that makes people emotionally and physically upset, prevents them from freely acting, thinking and feeling, makes them feel bad about themselves and others, and stops them from relaxing and feeling safe. While this is challenging enough as it is, PTSD may be an even greater burden for refugees, who need to pick up the pieces from a life that is gone and build a new life in a new place. The metaphor of cleaning clothes falls short in the face of the challenges faced by refugees. Refugees are not clothes that after a good wash will look as bright as before. Refugees need to adapt in all areas of life, of which mental well-being is only one. Still, the energy consumed by dealing with psychological trauma may be released after successful treatment and may enable refugees to invest in new growth: as individuals, as spouses and parents, as friends and neighbours, as pupils and teachers, as presenters and writers. Alleviating PTSD may be an important step in helping refugees reach their full potential. This is a great benefit, to refugees themselves and to the communities that have opened their doors to welcome them in.

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Chapter 9 Samenvatting

Hoofdstuk 1: Inleiding

Dit proefschrift gaat over de complexe problematiek van getraumatiseerde asielzoekers en vluchtelingen en de vraag of een behandeling genaamd Eye Movement Desensitisation and Reprocessing (EMDR) daar een antwoord op biedt. Getraumatiseerde vluchtelingen die hulp zoeken voor psychische klachten worden vaak gezien als complex, omdat hun klachten worden beïnvloed door zowel trauma-gerelateerde, juridische als sociale spanningsbronnen. Door deze opstapeling van spanning ontwikkelen sommige vluchtelingen een psychische aandoening genaamd posttraumatische stressstoornis (PTSS). Daarnaast zouden getraumatiseerde vluchtelingen een verhoogde kans hebben op het ontwikkelen van complexe PTSS: een aandoening die, al dan niet naast reguliere PTSS, problemen op het gebied van emotieregulatie, zelfbeeld en interpersoonlijke relaties behelst.

Volgens de behandelrichtlijnen voor PTSS moet alle volwassenen met PTSS een traumagerichte therapie aangeboden worden, zoals cognitieve-gedragstherapie of EMDR. Voorstanders van het complexe-PTSS-construct stellen echter dat het volgen van deze behandelrichtlijnen bij patiënten die lijden aan complexe PTSS kan leiden tot emotionele overbelasting. Voor hen zou daarom een gefaseerde behandeling, waarin een fase van psychosociale stabilisatie vooraf gaat aan een traumagerichte fase, beter zijn. Bij vluchtelingen leidt dit laatste advies soms tot jarenlange stabilisatie, het beperken van de behandeling tot stabilisatie alleen, of het ontzeggen van behandeling omdat een traumagerichte behandeling niet mogelijk zou zijn. Deze gang van zaken leidt mogelijk tot onderbehandeling en is daarom ongewenst.

In dit proefschrift wordt antwoord gezocht op drie centrale vragen:

1. Wat de veiligheid en effectiviteit is van EMDR in vergelijking met die van stabilisatie bij vluchtelingen met PTSS;
2. Wat de toepasselijkheid is van het complexe-PTSS-construct op de problematiek van getraumatiseerde vluchtelingen;
3. Of het veilig en effectief is om vluchtelingen en asielzoekers te behandelen met traumagerichte therapie.

Hoofdstuk 2: EMDR bij getraumatiseerde vluchtelingen – naar een wetenschappelijke onderbouwing

Naar de effectiviteit van EMDR bij volwassenen met PTSS is veel onderzoek gedaan. Daaruit blijkt steeds opnieuw dat EMDR effectief is. De effectiviteit van EMDR bij vluchtelingen is echter nog nauwelijks onderzocht. EMDR lijkt wel speciaal geschikt voor vluchtelingen, omdat er geen gebruik gemaakt wordt van huiswerkopdrachten, niet alle associaties verwoord hoeven worden, en omdat

het in beperkt transcultureel onderzoek effectief is gebleken. Toch zijn er bij het toepassen van EMDR bij getraumatiseerde vluchtelingen wat aandachtspunten.

Bij het behandelen van vluchtelingen met EMDR dient aandacht geschonken te worden aan de mate waarin traumagerichte therapie voor hen acceptabel, veilig en effectief is. De 'acceptabelheid' van traumagerichte therapie voor vluchtelingen is door transcultureel psychologen in twijfel getrokken omdat het teveel de nadruk zou leggen op individuele traumatisering, op PTSS en op verwerking, en te weinig op praktische ondersteuning. De veiligheid is een aandachtspunt omdat directe traumagerichte therapie volgens voorstanders van gefaseerd behandelen zou kunnen leiden tot psychische decompensatie. Bij de effectiviteit worden soms vraagtekens gezet omdat niet alle traumagerichte behandeling cultureel aangepast is en omdat er soms gebruik moet worden gemaakt van tolken. Ondanks bovenstaande aandachtspunten zijn Narratieve Exposure Therapie (NET) en Cultureel-Aangepaste Cognitieve Gedragstherapie (CA-CGT) effectief gebleken bij vluchtelingen.

Naar EMDR bij vluchtelingen is, hoewel het in de praktijk veel toegepast wordt, nog weinig onderzoek gedaan. Er zijn vijf studies verricht van beperkte kwaliteit. Met name kwalitatief goede gerandomiseerde studies ontbreken. Het is zinnig een gerandomiseerd onderzoek te doen naar hoe acceptabel, veilig en effectief EMDR bij vluchtelingen is. Daarbij kan gedacht worden aan verschillende onderzoeksopzetten, zoals het vergelijken van EMDR met wachtlijst of een andere traumagerichte therapie, gefaseerd versus direct toepassen van EMDR, of alleen EMDR vergelijken met EMDR in een multimodale behandeling.

Hoofdstuk 3: Pilotstudie van EMDR versus stabilisatie bij getraumatiseerde asielzoekers en vluchtelingen

Om in te schatten in hoeverre het uitvoeren van een gerandomiseerd onderzoek naar EMDR versus stabilisatie bij vluchtelingen haalbaar is, en of er mogelijk verschillen zijn in veiligheid en effectiviteit tussen de condities, verrichtten we een pilotstudie bij 20 asielzoekers en vluchtelingen. Deelnemers werden gerandomiseerd toegewezen aan ofwel 11 sessies EMDR ofwel 11 sessies stabilisatie. Vóór en op twee momenten na de behandeling werd gemeten in hoeverre ze last hadden van PTSS, angst en depressie en hoe hoog hun kwaliteit van leven was.

Uit deze pilotstudie bleek dat de onderzoeksopzet haalbaar was, maar wel werd bemoeilijkt door beperkte meetbaarheid van de deelnemers en een voorkeur van sommige therapeuten voor een behandeling op maat in plaats van een geprotocolleerde behandeling. In beide condities stopte 50% van de deelnemers voortijdig met de onderzoeksbehandeling. EMDR bleek even acceptabel en veilig voor patiënten als stabilisatie. Beperkte klachtvermindering bij EMDR-deelnemers

en beperkte klachtvermeerdering bij stabilisatiedeelnemers wees op mogelijke verschillen in effectiviteit die een grote gerandomiseerde studie rechtvaardigden.

Hoofdstuk 4: Gerandomiseerde studie van EMDR versus stabilisatie bij asielzoekers en vluchtelingen met PTSS

In deze studie vergeleken we de veiligheid en effectiviteit van 12 uur EMDR, verdeeld over 9 sessies, met die van 12 uur stabilisatie, verdeeld over 12 sessies. Aan deze studie namen 72 volwassen vluchtelingen deel. Vluchtelingen die suïcidaal, verslaafd of psychotisch waren werden uitgesloten van deelname. Daarnaast bleek een aantal patiënten niet bereid tot deelname omdat ze niet wilden worden toegewezen aan EMDR. Het merendeel van de deelnemers had zelf bijna het leven verloren, had familieleden of vrienden die waren vermoord, of was bedreigd met marteling.

Klachten weer op drie momenten werden gemeten. Het aantal deelnemers dat voortijdig stopte met de behandeling was dit maal beperkt tot 6 EMDR-deelnemers en 8 stabilisatiedeelnemers. We vonden opnieuw geen verschil in veiligheid tussen EMDR en stabilisatie, ook niet bij asielzoekers, en concludeerden daaruit dat directe EMDR (d.w.z., zonder voorafgaande stabilisatiefase) mogelijk en veilig is. We vonden echter ook geen verschil in effectiviteit tussen EMDR en stabilisatie: beide behandelingen waren beperkt effectief. Deze uitkomst was anders dan we hadden verwacht en probeerden we te verklaren vanuit het relatief kleine aantal sessies, de complexiteit van de doelgroep en de beperkte culturele sensitiviteit van het EMDR-protocol.

Hoofdstuk 5: Voorspellers van behandelsucces bij deelnemers aan het gerandomiseerde onderzoek

Omdat we in de hoofdstudie een lagere effectiviteit van EMDR vonden dan verwacht, gingen we op zoek naar factoren die behandelsucces bij vluchtelingen kunnen voorspellen. Hier bestaan verschillende aannames over: sommige algemeen (bijvoorbeeld dat geslacht een voorspeller is van behandelsucces), sommige transcultureel (bijvoorbeeld dat het al dan niet hebben van een vluchtelingenstatus een voorspeller is) en sommige gerelateerd aan het complexe-PTSS-construct (bijvoorbeeld dat een hoger aantal of vroegkinderlijke traumatische ervaringen van invloed zijn op behandelsucces). In deze studie keken we wat de invloed was van dergelijke variabelen op verandering in ernst van PTSS na behandeling.

Uit de analyses bleek dat 57% van de verandering in PTSS-ernst verklaard kon worden vanuit individuele verschillen tussen deelnemers. Van deze 57% kon 34% verklaard worden door ernst en aanwezigheid van een depressieve stoornis. In andere woorden: depressieve klachten hebben een belangrijke invloed op het

vermogen van vluchtelingen om te profiteren van een behandeling voor PTSS. Opvallend is dat geen van de transculturele en traumagerelateerde factoren waarvan klinisch vaak wordt aangenomen dat ze van invloed zijn op behandelresultaat daadwerkelijk verschillen in behandelresponse tussen deelnemers konden voorspellen.

Hoofdstuk 6: Verschil in effectiviteit van behandeling tussen vluchtelingen en niet-vluchtelingen

Ook in dit hoofdstuk gingen we op zoek naar factoren die van invloed zijn op behandelresultaat bij vluchtelingen. Waar we in de gerandomiseerde studie de effectiviteit van twee soorten behandeling bij dezelfde doelgroep (vluchtelingen) met elkaar vergeleken, vergeleken we in deze studie de effectiviteit van dezelfde behandeling bij twee verschillende doelgroepen (vluchtelingen en patiënten met beroepsgerelateerd trauma). Alle deelnemers waren in reguliere behandeling bij Stichting Centrum '45. We beoordeelden de ernst van hun PTSS-klachten bij intake en na één jaar.

Er bleek een verschil te zijn in behandelresultaat tussen vluchtelingen en patiënten met beroepsgerelateerd trauma. Dit verschil was weliswaar statistisch significant maar stelde klinisch niet veel voor. Het grootste verschil tussen de doelgroepen bestond niet zozeer uit een verschil in klachtafname maar uit een verschil in hoogte van de PTSS-klachten: deze waren zowel bij intake als na één jaar veel hoger bij vluchtelingen dan bij patiënten met beroepsgerelateerd trauma. Hieruit concludeerden wij dat het goed is om realistisch te zijn over hoeveel klachtafname mogelijk is bij reguliere behandeling van vluchtelingen.

We zochten eveneens naar voorspellers van behandelresultaat van vluchtelingen. In tegenstelling tot wat soms gedacht wordt, had het al dan niet hebben van een vluchtelingenstatus geen effect op behandelresultaat. Wel bleken vluchtelingen die bij intake hogere PTSS-klachten hadden, een grotere klachtafname te vertonen na één jaar.

Hoofdstuk 7: Complexe PTSS en gefaseerde behandeling bij vluchtelingen

In dit eerste discussiehoofdstuk keerden wij terug naar twee centrale vragen van dit proefschrift: in hoeverre het complexe-PTSS-construct van invloed is op vluchtelingen, en in hoeverre gefaseerde behandeling voor hen geïndiceerd is. Wij maakten hierbij gebruik van systematische reviews en meta-analyses van studies bij vluchtelingen van de afgelopen 15 jaar.

Uit een door onszelf uitgevoerde systematische review bleek dat het veel waarschijnlijker is dat getraumatiseerde vluchtelingen alleen een reguliere PTSS-diagnose hebben of noch een PTSS- noch een complexe-PTSS-diagnose, dan dat

zij aan een diagnose van complexe PTSS (met of zonder reguliere PTSS) voldoen. De prevalentie van complexe PTSS bij vluchtelingen bleek relatief lager dan die bij slachtoffers van vroegkinderlijk trauma – een groep waarop het complexe-PTSS-construct geënt is.

Daarnaast bleek dat de afgelopen jaren behoorlijk wat bewijs is verzameld dat traumagerichte therapie, met name NET en CA-CGT, bij vluchtelingen mogelijk en effectief is. Er is ook beperkt bewijs dat dit in gelijke mate geldt voor vluchtelingen met en zonder verblijfsstatus.

De klinische implicaties van deze twee bevindingen zijn (1) dat het belangrijk is om de diagnose complexe PTSS bij vluchtelingen zorgvuldig te stellen in plaats van er op basis van complexe traumatische ervaringen vanuit te gaan dat ze wel aan deze diagnose zullen voldoen, en (2) dat het op basis van het huidige wetenschappelijke bewijs meer verantwoord is om alle vluchtelingen met PTSS traumagerichte behandeling aan te bieden dan om psychosociale stabilisatie als voorwaarde hiervoor te stellen.

Hoofdstuk 8: Discussie

In dit tweede discussiehoofdstuk trokken wij slotconclusies over de veiligheid en effectiviteit van EMDR bij vluchtelingen woonachtig in westerse landen. We concludeerden dat EMDR veilig is voor vluchtelingen, en dat het voor zo'n 40% van de vluchtelingen ook effectief is. We benadrukten het belang van een simpel EMDR-protocol, van verder onderzoek naar betekenisgeving in niet-westerse culturen, en van inzicht in de werkingsmechanismes van EMDR.

Daarnaast gingen we in op de vraag wat vluchtelingen complex maakt. De afgelopen jaren is duidelijk geworden dat met name complexe traumatische ervaringen en een complexe sociale context hieraan bijdragen. Een juridisch complexe situatie blijkt echter geen duidelijke bijdrage te leveren aan het klachtenbeeld van vluchtelingen. Uit ons eigen onderzoek bleek dat ernstige depressie behandelsucces bij vluchtelingen kan bemoeilijken. Ons onderzoek is niet het enige dat aantoont dat complexe patiënten met PTSS beter in staat zijn tot het volgen van een behandeling voor PTSS dan gedacht: ook uit onderzoek bij patiënten met psychose en middelenafhankelijkheid blijkt dit het geval.

Als laatste bespraken we ons onderzoeksdesign. Vluchtelingen blijken beter in staat tot deelname aan een traumagericht onderzoek dan weleens verondersteld wordt. Omdat vluchtelingen woonachtig in westerse landen cultureel zo van elkaar kunnen verschillen is het de vraag hoe onderzoek bij hen zo betrouwbaar en valide mogelijk kan worden uitgevoerd. Mogelijk kunnen hiervoor in de toekomst richtlijnen worden geformuleerd. Ons eigen onderzoek zou gebaat zijn geweest bij een naturalistische studie voordat wij overgingen tot een grote gerandomiseerde

studie. Daarnaast was het nuttig geweest als wij vluchtelingen zelf hadden gevraagd naar hun voorkeur voor behandeling. Een effectieve behandeling voor PTSS kan immers mentaal ruimte vrijmaken voor hernieuwde persoonlijke groei bij vluchtelingen.

About the Author

Jackie June ter Heide (1972) obtained a Master's degree in clinical and health psychology from the University of Leiden (cum laude, 1996), where she also worked as a research assistant. She obtained a second Master's degree in systematic theology from Cambridge University (1998) and then worked for a year as a course volunteer at Saint George's College, Jerusalem. She completed her professional training as a healthcare psychologist at Mentrum, Amsterdam (2001), and as a clinical psychologist and psychotherapist at Ursula, Leidschendam and Foundation Centrum '45, Amsterdam and Oegstgeest (2009). She has worked as a healthcare psychologist at Meregaard, Almere and as a dialectical-behavioural therapist at Jellinek, Amsterdam. Since 2009 she works as a clinical psychologist at Foundation Centrum '45, where she is involved in outpatient care for police officers and is program coordinator of research and innovation projects on complex PTSD. Jackie June received numerous grants to read theology, an OOG-grant (Opleiding Onderzoekers in de Gezondheidszorg) from ZonMW for her PhD research, and research grants from the Dutch EMDR Society and the Abbas Fonds. Jackie June is a trained therapist in Brief Psychotherapy for PTSD (BEPP) and Narrative Exposure Therapy (NET), an EMDR Europe practitioner and a licensed trauma therapist for the Dutch-Speaking Society of Psychotrauma. In 2011 she participated in the international summer school in forced migration at Oxford University. She serves as assistant editor at Intervention, Journal of Mental Health and Psychosocial Support in Conflict Affected Areas. Jackie June supervises psychology interns and trainees and teaches courses on trauma and culture and on the Dutch Clinician Administered PTSD Scale (CAPS).

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