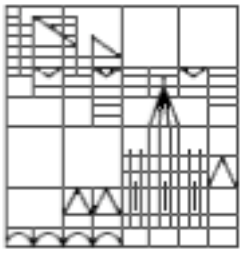

Health Care and Treatment of Posttraumatic Stress Disorder in Asylum Seekers in Germany

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1 Summary

Asylum seekers are a population at risk with regard to mental illness. Many of them have survived several forms of organized violence, such as persecution, war, and torture. We conducted a descriptive analysis of the records of n = 231 patients at the Research- and Outpatient Clinic for Refugees concerning psychiatric disorders, health care provision and utilization, as well as pharmaceutical and psychotherapeutic supply. The analyses focused on asylum seekers without permanent residence permit. A majority of 86% of the asylum seekers were diagnosed with Posttraumatic Stress Disorder (PTSD) as a consequence of traumatic experiences, such as those named above; also Major Depression was found to be highly prevalent in this population (68.6%). We moreover found that 88.7% of asylum seekers suffering from PTSD reported to see at least one physician on a regular basis and 74.4% declared to receive psychotherapy. With regard to medication 82.2% reported to take at least one and up to 9 psychoactive drugs on a daily basis. Yet, pharmaceutical treatment was not strongly related to PTSD symptom severity (r = .15) and despite the intensive utilization of health care services the asylum seekers displayed a very high rate of psychological impairment.

The need for efficacious treatment is evident. Accordingly, a treatment trial was initiated and we offered psychotherapy to asylum seekers, who were diagnosed with PTSD. A sample of n = 32 participants received either about 9 2-hour-sessions of Narrative Exposure Therapy (NET; n = 16) or treatment as usual (TU; n = 16) outside the Outpatient Clinic. With regard to posttraumatic symptoms NET was found to lead to significantly better outcome than TU after 6 months (NET: d = 1.6; TU: d = 0.4). At the 2-year follow-up the treatment effects remained stable in the NET group. Participants in the TU group did not improve within the first 6 months, yet, after 2-years they displayed symptom loads comparable to the NET sample. However, since - contrary to the NET participants - the majority of the TU group received refugee status within the follow-up period it remains unclear whether symptom reduction can be attributed to treatment effects or to a change towards a secure living situation. Even though the majority of participants in both groups still fulfilled the criteria for PTSD, it is evitable that NET leads to a faster symptom reduction and consequently to a decrease in suffering from psychological impairment.

In a next step, NET was introduced to therapists in the clinical practice and evaluated with regard to practicability and efficacy outside the academic setting. A second aspect of this trial

was to gain more detailed information on how PTSD-treatment is conducted in the clinical practice. Fourteen therapists conducted treatment as usual (TU) with $n = 25$ patients suffering from PTSD and provided information on therapeutic techniques, duration and intervals of sessions. According to this information, treatment as usual for PTSD in asylum seekers mainly consisted of present-focused approaches. Nine of these therapists participated in the NET training and 3 conducted NET within their usual treatment procedure with $n = 5$ patients. Again, patients treated with NET were found to improve more and faster within the year of observation with regard to posttraumatic symptoms in comparison with those who received TU alone (TU-NET: $d = 2.0$; TU $d = 0.3$). This trial indicates that the dissemination of evidence- and manual-based approaches as well as the effective treatment of PTSD in asylum seekers living under insecure conditions is possible. Yet, it also shows a demand for collaboration of research and clinical practice in this field to provide proper treatment for severely traumatized asylum seekers.

2 Zusammenfassung

Asylbewerber stellen in Bezug auf psychische Erkrankungen eine Risikogruppe dar. Viele haben verschiedene Formen organisierter Gewalt erlebt, wie z.B. Verfolgung, Krieg und Folter. Es wurde eine deskriptive Analyse der Angaben von $n = 231$ Patienten durchgeführt, die in der Forschungs- und Modellambulanz für traumatisierte Flüchtlinge vorstellig wurden. Die Akten wurden mit Hinblick auf folgende Aspekte ausgewertet: psychische Erkrankungen bzw. Diagnosen, Versorgung durch das Gesundheitssystem und Inanspruchnahme dieser Möglichkeiten, pharmakologische und psychotherapeutische Versorgung. Der Schwerpunkt der Auswertung lag auf Asylbewerbern mit ungeklärtem Aufenthaltsstatus. Eine Mehrheit von 86% dieser Gruppe hatte die Diagnose einer Posttraumatischen Belastungsstörung (PTBS) als Folge traumatischer Erfahrungen wie zum Beispiel die oben genannten. Die Diagnose einer Major Depression wurde auch sehr häufig gestellt (68.6%). Darüber hinaus gaben 88.7% der Asylbewerber, die unter PTBS litten, an, regelmäßig zu mindestens einem Arzt zu gehen und 74.4% nahmen zum Zeitpunkt der Untersuchung Psychotherapie in Anspruch. In Bezug auf Medikation berichteten 82.2% der Betroffenen täglich mindestens ein und bis zu 9 psychoaktive Substanzen einzunehmen. Allerdings wurde kein starker Zusammenhang von Pharmakotherapie und Symptomschwere der PTBS gefunden ($r = .15$) und trotz der intensiven Inanspruchnahme des Gesundheitswesens zeigten die Asylbewerber ein hohes Ausmaß an psychischer Beeinträchtigung.

Die Notwendigkeit effektiver Behandlungsansätze ist offensichtlich. Entsprechend wurde eine Behandlungsstudie angeregt und Asylbewerbern, die mit PTBS diagnostiziert wurden, Psychotherapie angeboten. Eine Gruppe von $n = 32$ Teilnehmern erhielt entweder etwa 9 2-stündige Sitzungen Narrative Expositionstherapie (NET; $n = 16$) oder eine reguläre Behandlung außerhalb der Ambulanz für Flüchtlinge (‚treatment as usual, TU'; $n = 16$). In Bezug auf die posttraumatische Symptomatik zeigte NET signifikant bessere Ergebnisse als TU nach 6 Monaten (NET: $d = 1.6$; TU: $d = 0.4$). Bei der 2-Jahresnachuntersuchung wurden stabile Therapieeffekte für die NET-Gruppe gefunden. Die Teilnehmer aus der TU-Gruppe zeigten keine Verbesserung innerhalb der ersten 6 Monate, allerdings wurde nach 2 Jahren ein der NET-Gruppe vergleichbares Ausmaß an Symptomschwere festgestellt. Nachdem – im Gegensatz zu den Teilnehmern in der NET-Gruppe – die Mehrheit der TU-Gruppe einen Flüchtlingsstatus im Verlauf des Nachuntersuchungszeitraums erhielt, bleibt unklar, inwieweit der Symptomrückgang auf Behandlungseffekte oder eine Veränderung zu einer sicheren Lebenssituation hin zu-

rückzuführen ist. Obwohl die Mehrheit der Patienten in beiden Gruppen nach wie vor die Kriterien einer PTBS erfüllen, wird deutlich, dass NET zu einer schnelleren Symptomreduktion und in der Folge zu einem Rückgang von psychischem Leidensdruck führt.

In einem nächsten Schritt wurde NET Therapeuten in der klinischen Praxis vorgestellt und hinsichtlich ihrer Praktikabilität und Effektivität außerhalb der akademischen Umgebung überprüft. Ein zweiter Aspekt dieser Studie war es, mehr detaillierte Information in Bezug auf PTBS-Behandlung in der klinischen Praxis zu erhalten. Vierzehn Therapeuten führten ihre reguläre Behandlung (TU) mit $n = 25$ Patienten durch, die unter PTBS litten, und gaben Informationen in Bezug auf die eingesetzten therapeutischen Techniken, Sitzungsdauer und -intervalle. Nach diesen Angaben besteht eine reguläre Psychotherapie bei Asylbewerbern mit PTBS überwiegend aus Ansätzen, die auf die aktuelle Lebenssituation fokussieren. Neun der Therapeuten nahmen an einem Training in NET teil und 3 führten NET im Rahmen ihres üblichen Vorgehens bei $n = 5$ Patienten durch. Wieder zeigte sich, dass Patienten, die mit NET behandelt wurden, eine stärkere und schnellere Verbesserung hinsichtlich posttraumatischer Symptome zeigten im Vergleich zu denen, die ausschließlich TU erhielten (TU-NET: $d = 2.0$; TU $d = 0.3$). Diese Studie zeigt, dass die Dissemination von Evidenz- und Manual-basierten Therapieansätzen wie auch eine effektive Behandlung von PTBS in Asylbewerbern in einer unsicheren Lebenssituation möglich sind. Allerdings weist sie auch auf den Bedarf einer Zusammenarbeit von Forschung und klinischer Praxis hin, um eine angemessene Behandlung für schwer traumatisierte Asylbewerber zu ermöglichen.

3 General Introduction

This thesis focuses on health care for and treatment of asylum seekers in Germany who suffer from posttraumatic stress disorder (PTSD). Asylum seekers are a population at risk for mental health issues for different reasons and with many respects. They represent a group of people who often survived war, persecution, torture and other forms of organized violence, as is being introduced in chapter 4. As a consequence of these pervasive experiences, the individuals often suffer from a variety of psychiatric conditions (chapter 5). One highly prevalent disorder in this population is the posttraumatic stress disorder (PTSD), which occurs as a consequence of traumatic experiences (e.g., during torture or war) and leads to severe impairment of functioning. Asylum seekers do experience further stressors living in exile, the stress of adaptation to a new culture, facing a number of legal restrictions, but above all facing an unclear period of time and unlikely success concerning the application procedure, which add to already existing mental strain (chapter 6). The need for adequate support provided by the health care system is evident. In this context, known and evaluated treatment approaches for PTSD are introduced in chapter 7.

Yet, in spite of broad research on etiology, prevalence and treatment of PTSD the clinical practice is not well known in this regard, especially not in the context of traumatized asylum seekers in Germany. Accordingly, the following chapters of this thesis cover empiric approaches in this context. The studies have been conducted at the Research- and Outpatient Clinic of the University of Konstanz. First, the access to health care and patterns of utilization by asylum seekers suffering from PTSD are descriptively analyzed (chapter 8). Besides the consultation pattern of practitioners also the type and structure of pharmaceutical treatment is introduced. Second a treatment trial is presented in chapter 9, in which Narrative Exposure Therapy (NET) is evaluated in the population of severely traumatized asylum seekers in an academic setting. In a further step, NET as efficacious treatment approach for PTSD in asylum seekers is disseminated into the clinical practice in form of a further treatment trial (chapter 10). The conclusions and implications for the clinical practice based on the empiric findings at hand are presented in chapter 11.

4 Organized Violence

4.1 Organized Violence and Torture

Organized violence

The World Health Organization (WHO) defines violence (WHO Global Consultation on Violence and Health, 1996) as:

> The intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in harm, maldevelopment or deprivation.

There are different approaches to a definition of types of violence (Dennen, 2005), such as structural levels (intra-family to intercultural), dimensions and dichotomies (direct/indirect, organized/unorganized, actual/potential), according to the criteria of legality and legitimacy, with regard to the context and so on.

The WHO proposes three types of violence (Krug, 2002) as follows: self-directed (e.g. suicidal thoughts and behavior, self-mutilation), interpersonal (e.g. family and intimate partner violence, community violence between unrelated individuals), and collective violence (social, political, economic). Collective violence that is committed to advance a particular social agenda includes, for example, crimes of hate committed by organized groups, terrorist acts and mob violence. Political violence includes war, and related violent conflicts, state violence and similar acts carried out by larger groups. Economic violence includes attacks by larger groups motivated by economic gain – such as attacks carried out with the purpose of disrupting economic activity, denying access to essential services, or creating economic division and fragmentation. Various forms of collective violence have been recognized, including:

- Wars, terrorism, and other violent political conflicts that occur within or between states;
- State-perpetrated violence such as genocide, repression, disappearances, torture and other abuses of human rights;
- Organized violent crime such as banditry and gang warfare.

Despite this definition, the term “collective violence” is being used differently in sociobiological studies (Wrangham & Wilson, 2004), in social, sociocultural and -political essays about violence (J. Green, 2003; Staub, 1999; Young, 1991), or emergency medical aspects in response to terrorism (Garcia-Castrillo Riesgo & Garcia Merino, 2003; Neuner, 2003). How-

ever, in studies of the characteristics and consequences of torture, war and forced migration, the psychological literature most often refers to the term "organized violence" (Almqvist & Broberg, 2003; Basoglu, 1993; Eytan, Gex-Fabry, Toscani, Deroo, Loutan, & Bovier, 2004; Van Velsen, Gorst-Unsworth, & Turner, 1996), still, without consistent definition. Other authors use terms like "state-sponsored violence" (S. Weine & Laub, 1995) and "severe human rights violations" (Silove, 1999) to describe related occurrences. For the purpose of this thesis, I will refer to the definition of organized violence according to Neuner (2003):

> Organized violence is violence that is directly and actually applied with a systematic strategy by members of a group with at least a minimum of centrally guided structure (police units, rebel organizations, terror organizations, paramilitary and military formations). It is applied with certain continuity against individuals and groups with a different political attitude, nationality as well as racial, cultural or ethnical background. It is characterized by the violation of central human rights or other basic rights of people.

According to this definition, Neuner (2003) classifies three types of organized violence: The first type is the permanent state-sponsored persecution that is present in all dictatorships, and even in some countries that are considered democracies. This harassment includes different forms of violence like torture, extralegal executions, disappearances etc. The second type is the massive violence committed against people in an interstate war or a civil war. The third type of organized violence is characterized by violence committed by terror organizations.

Torture

There are various definitions of torture by distinct organizations and in different international treaties, reflecting the different contexts in which they were drafted, and the purposes of the treaties in which they appear. The UN convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment (1984) defines torture as follows:

> For the purposes of this Convention, the term "torture" means any act by which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions.

The convention is concerned with torture that is committed by government agents or by people who act with official sanctions. The Optional Protocol to the Convention (UNHCR,

2002), “aims to take concrete steps to prevent torture in police stations, prisons and other places where people are deprived of their liberty. Any states ratifying the Optional Protocol commit themselves to allowing regular and unannounced inspections of places of detention by international monitors. They also commit themselves to setting up independent national bodies to carry out inspections within their territory.“ According to Amnesty International (2005a) dated June 7, 2005, 37 states have signed the optional protocol, not including the United States of America, Germany, or Turkey, for example. Yet, they state that visits to places of detention are among the most effective means to prevent torture and to improve conditions.

Amnesty International (2005b) uses the term „torture“ to refer to the deliberate infliction of severe pain or suffering by state agents, or similar acts by private individuals for which the state bears responsibility through consent, acquiescence or inaction, as well as to deliberate pain or suffering inflicted by members of armed political groups. Their definition refers to the victims of torture, who are not only political prisoners in the interrogation chamber, police station, or prison cell, but also can be found in refugee camps, on the streets, and in people’s homes.

Torture is the intentional infliction of severe pain or suffering for a specific purpose. The aim of torture is not to kill the victim, but to break down the victim's personality (IRCT, 2005). It is often used to punish, obtain information or a confession or take revenge on a person or create terror and fear within a population to intimidate opponents of the ruling regime. In this context, torture is only one means of human right violations. Other common instruments are the imprisonment of nonviolent opponents, the conviction of opponents without opportunity of fair trial, secret imprisonments, the application of death penalties, extralegal executions and disappearances.

Methods of physical and psychological torture are remarkably similar. Most techniques seek to prolong the victims' pain and fear for as long as possible without leaving visible evidence on their bodies (IRCT, 2005). Some of the most common methods of physical torture include beating, electric shocks, stretching, submersion, suffocation, and burns. Common methods of psychological torture include isolation, blindfolding, threats, humiliation, mock executions, sleep deprivation, and witnessing the torture of others including family members (Basoglu, Paker, Ozmen, Tasdemir, & Sahin, 1994a; Graessner, 2000; Moisander & Edston, 2003). Rape and sexual assault are also a form of torture, and are commonly practiced against both women and men during arrest or imprisonment, or during conflicts and civil war. It is well

documented that in very many cases physicians and other health professionals participated in torture (British Medical Association, 1992; Crelinsten & Schmid, 1995).

Vesti et al. (1992) categorize torture techniques as reported by survivors: deprivation techniques (depriving victims of fundamental bodily needs like sleep, nutrition, hygiene, and health care), coercion techniques (forcing victims to take part in degrading activities, like witnessing torture, eating excrements, etc.), communication techniques (verbal abuse, alternating rough/gentle treatment), pharmacological techniques and sexual torture techniques. Basoglu and colleagues (1994a) report for a group of 55 Turkish torture survivors an average of 291 exposures to a mean of 23 different forms of torture during a mean length of imprisonment of 47 months. Victims are being held in a state of helplessness. They are forced to sign prepared statements or to betray other opponents during torture, which is a means to provoke feelings of guilt, shame and fear. Usually giving in does not protect from further torture.

A study by Leth and Banner (2005) found that in 70% of asylum seekers who claim to have been tortured in their country of origin, aftereffects of torture could be documented. Moisander and Edston (2003) found 75-100% of torture scars in torture victims from six different countries. In a study with 72 male torture survivors, 28% were survivors of sexual trauma and had as a consequence urologic and/or sexual dysfunction (Norredam, Crosby, Munarriz, Piwowarczyk, & Grodin, 2005). Still, torture methods and with these, aftereffects can differ significantly between countries (Moisander & Edston, 2003), so that profound knowledge is needed when examining an asylum seeker with respect to torture. Torture in Turkey, for example, is designed not to leave scars, since lack of injuries is an indication for noncredibility (Leth & Banner, 2005). In consequence, the lack of enduring physical scars as well as the lack of medical specialists conversant with the physical sequels of torture, interferes with efforts to document the human rights abuses and make it difficult for the victim to prove torture experiences when he applies for asylum in an exile country. Quiroga and Gurr (1998) point out, that the time between the exposure to torture and the medical examination was crucial; the closer the victim is examined to the time of torture, the easier it is to observe any physical signs.

The Amnesty International Report (2005c) with statistics covering January to December 2005 documents cases of torture and ill-treatment by security forces, police, and other state authorities in 149 countries. Reports of torture are more common from regions affected by political unrest, including mass demonstrations, riots, and outbreaks of violence, killings, coup attempts, civil war, rebellions, and conflicts with various opposition groups demanding social

and political reform. Estimates range from 5% to 36% of at least one lifetime torture experience among the worldwide refugee population (Baker, 1992; J.T. de Jong *et al.*, 2001; Frey & Valach, 1997). However, Gorst-Unsworth and Goldenberg (1998) found a prevalence rate of 65% torture experiences in male Iraqi war refugees and Jaranson and colleagues (2004) found a torture prevalence ranging from 25% to 69% in Somali and Oromo refugees.

Table 4-1: Frequencies (%) of the most common torture methods in six countries (Moisander & Edston, 2003)

	Bangladesh	**Iran**	**Peru**	**Syria**	**Turkey**	**Uganda**	**All groups**
N	53	21	16	24	25	21	160
Falaka							
Total	85.7	61.9	6.2	95.8	84	4.8	64.8
In Tyre	0	0	0	70.8	12	0	12.5
Electricity	84.9	0	25	45.8	56	28	50
Suspension	73.6	47.6	43.8	37.5	68	28.6	55
Nail torture	18.9	4.8	6.3	0	4	4.8	8.8
Rape	37.8	14.3	18.8	12.5	28	42.9	28.1
Genital torture	39.8	9.5	25	16.7	40	19	28.1
Submarino	17	0	56.3	4.2	0	4.8	12.6
Water treatment	58.5	0	0	0	0	0	19.5
Fake execution	15.1	33.3	25	8.3	8	0	14.4
Telephono	0	0	18.8	0	0	0	1.9
Roller	9.4	0	0	0	0	0	3.1

Note: "submarino": i.e. drowning in a vat, often with polluted water; "water treatment": choking the victim by pouring hot and / or polluted water into the nasal cavities; "telephono": being boxed hard on both ears simultaneously; "roller": rolling a thick wooden log over the front of the legs.

4.2 Survivors of Organized Violence as Refugees and Asylum seekers

A consequence of organized violence and torture is that many people have to flee from their region of origin. The United Nations High Commissioner for Refugees (UNCHR, 2005a) differentiates between refugees, asylum seekers, returned refugees, internally displaced people (IDP), and others, e.g. stateless persons.

According to the 1951 Convention and Protocol Relating to the Status of Refugees the UNHCR states that the term "refugee" shall apply to any person who …

> …owing to well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is

> outside the country of his nationality and is unable or, owing to such fear, is unwilling to avail himself of the protection of that country; or who, not having a nationality and being outside the country of his former habitual residence as a result of such events, is unable or, owing to such fear, is unwilling to return to it (Article 1 V, 33 GK).

This definition has been included in several constitutions and acts, for example in the German Constitution (§ 16a GG) and the German Residence Law (§ 60 Abs. 1 AufenthG[1]). These paragraphs define the legal status of people who have been hunted for political reasons in their country of origin, either as asylum seekers or as refugees.

The Convention was endorsed by regional declarations augmenting the UN mandate to people who had to flee their region of origin because of armed conflicts or civil strife. As of July 15th, 2005 a number of 139 States Parties signed both the 1951 Convention and the 1967 Protocol (UNHCR, 2005b), thereby acknowledging refugees according to the aforementioned definition. Altogether 145 States Parties signed either the 1951 Convention or the 1967 Protocol. Refugees as well as internally displaced persons (IDPs) leave their homes for similar reasons, however, contrary to the refugees, IDPs do not cross their home countries borders.

Asylum seekers and refugees in Germany – legal perspective

According to the German Asylum Procedure Act (Asylverfahrensgesetz), an asylum seeker is any person who seeks refugee status in a safe state because of political persecution (§ 13 AsylVfG)[2].

Until December 31st, 2004 the German Aliens Act (Ausländergesetz) specified any circumstances concerning residence of foreigners in Germany. As of January 1st, 2005 these matters are defined in the German Residence Law (Aufenthaltsgesetz), following a legislation amendment. The relevant articles and their changes are listed in table 4-2.

[1] § 60 AufenthG (Verbot der Abschiebung): (1) In Anwendung des Abkommens vom 28. Juli 1951 über die Rechtsstellung der Flüchtlinge (BGBl. 1953 II S.559) darf ein Ausländer nicht in einen Staat abgeschoben werden, in dem sein Leben oder seine Freiheit wegen seiner Rasse, Religion, Staatsangehörigkeit, seiner Zugehörigkeit zu einer bestimmten sozilaen Gruppe oder wegen seiner politischen Überzeugung bedroht ist. Dies gilt auch für Ausländer, die im Bundesgebiet die Rechtsprechung ausländischer Flüchtlinge genießen oder die außerhalb des Bundesgebiets als ausländische Flüchtlinge im Sinne des Abkommens über die Rechtsstellung der Flüchtlinge anerkannt sind. Eine Verfolgung wegen er Zugehörigkeit zu einer bestimmten sozialen Gruppe kann auch dann vorliegen, wenn die Bedrohung des Lebens, der körperlichen Unversehrtheit oder der Freiheit allein an das Geschlecht anknüpft.

[2] § 13 AsylVfG (Asylantrag): (1) Ein Asylantrag liegt vor, wenn sich dem schriftlich, mündlich oder auf andere Weise geäußerten Willen des Ausländers entnehmen lässt, dass er im Bundesgebiet Schutz vor politischer Verfolgung sucht oder dass er Schutz vor Abschiebung oder einer sonstigen Rückführung in einen Staat begehrt, in dem ihm die in § 60 Abs. 1 des Aufenthaltsgesetzes bezeichneten Gefahren drohen.
(2) Mit jedem Asylantrag wird sowohl die Feststellung, dass die Voraussetzungen des § 60 Abs. 1 des Ausländergesetzes vorliegen, als auch, wenn der Ausländer dies nicht ausdrücklich ablehnt, die Anerkennung als Asylberechtigter beantragt.

Table 4-2: Relevant Changes in German Asylum Legislation towards 2005

Until December 31st, 2004:		**From January 1st, 2005 on:**	
Bundesamt für die Anerkennung ausländischer Flüchtlinge	Federal Agency for the Recognition of Foreign Refugees	Bundesamt für Migration und Flüchtlinge	Federal Agency for Migration and Refugees
Ausländergesetz (AuslG)	German Aliens Act	Aufenthaltsgesetz (AufenthG) im Zuwanderungsgesetz (ZuwG) enthalten	Residence Law, part of Immigration Law
Aufenthaltsgenehmigung (§5 AuslG): Überbegriff für	Residency authorization, super ordinate for	Aufenthaltstitel (§4 AufenthG):	Titles of Residency:
- Aufenthaltserlaubnis (§15): nicht zweckgebundener Aufenthalt	- Residence permit without specific purpose	- Visum (§6): Durchreise; Aufenthalte von bis zu 3 Monaten pro Halbjahr	- Visa for a journey through or residence of up to 3 months per half-year
- Aufenthaltsberechtigung (§27): zeitlich und räumlich unbeschränkt	- Residence permit, temporal and regional unlimited	- Aufenthaltserlaubnis (§7): befristet, zweckgebunden (vgl. §§16-25)	- Limited residence permit; temporary, with specific purpose
- Aufenthaltsbewilligung (§§28, 29): vorübergehender, zweckgebundener Aufenthalt	- Residence permit; temporary, with specific purpose	- Niederlassungserlaubnis (§9): zeitlich und räumlich unbeschränkt	- Residence permit; temporal and regional unlimited
- Aufenthaltsbefugnis (§30): aus völkerrechtlichen, humanitären Gründen, Wahrung politischer Interessen	- Permit to stay, according to international law, for humanitarian reasons, or for protection of political interests		
- Verbot der Abschiebung politisch Verfolgter (§ 51)	- Prohibition of deportation of politically prosecuted persons	- Verbot der Abschiebung (§ 60)	- Prohibition of deportation
- Abschiebungshindernisse (§ 53)	- Decree impending deportation	- Verbot der Abschiebung (§ 60)	- Prohibition of deportation
- Duldung (§§55-56a): Aussetzung einer Abschiebung; Aufenthalt ohne Aufenhaltsgenehmigung ohne Bestrafung (§92 I Nr.1)	- Exceptional leave to remain	- Duldung, vorübergehende Aussetzung einer Abschiebung (§60a)	- Exceptional leave to remain

If the risks as described in § 60 Abs. 1 AufenthG are approved by the Federal Agency for Migration and Refugees (BAMF) for an asylum seeker, the person is entitled to the legal status of a refugee according to the 1951 Convention (§ 3 AsylVfG). During the asylum procedure the applicant may stay in the Federal Republic of Germany (§ 55 AsylVfG; befristete Aufenthaltsgestattung).

Refugees and Asylum Seekers in Numbers

Despite the definition of the term "refugee" at the 1951 Convention, this expression is not used with the same meaning across contexts, which is why different numbers exist concerning refugees and other forced migrants.

For the year 2004 The United Nations High Commissioner for Refugees (UNCHR, 2005a) counted 19.2 million "People of concern to UNHCR" in more than 150 countries. Among those were 9.2 million refugees, 839,000 asylum seekers, 1.5 million returned refugees, 7.6 million internally displaces people, and others, e.g. about 1.5 million stateless persons. Compared to 2003, the total population of uprooted people increased by about 13%, although the refugee population alone decreased by about 4%. According to the U.S. Committee for Refugees (2005), the total number of refugees and asylum seekers in 2004 was as high as 11.5 million, which is about 3% less than in the year before. In 2003 11.9 million refugees and asylum seekers were counted. Main countries of origin of refugees in the year 2004 under UNHCR care were Afghanistan (2.1 million), Sudan (730,000) and Burundi (485,000). Especially in Serbia and Montenegro (250,500; -33,000) as well as Bosnia and Herzegovina (-62,000) the numbers decreased compared to the year before (UNCHR, 2005a).

The German Federal Agency of Migration and Refugees (BAMF) reports for 2003 a number of 1.088 million refugees, who have stayed in Germany (BAMF, 2005b). The number of first applications for asylum decreased in 2005 by about 19% compared to the year before; the number of case reopenings decreased by about 4% (BAMF, 2006). Table 4-3 shows the ten countries of origin with the highest amount of influx to Germany during 2005 (BAMF, 2006).

According to the BAMF (2005b) the average duration of the asylum procedure was 21.3 months, indicating that asylum seekers stay in an insecure status for almost 2 years after arrival in Germany. The agency presents numbers according to which at the end of 2004 13,945 asylum seekers from Turkey and 23,285 persons from Serbia and Montenegro had an exceptional leave to remain. However, according to PRO ASYL (2004), 150.000 of 217.000 persons holding an exceptional leave to remain have already lived in Germany for more than five years.

However, some patients at the Psychotrauma Research- and Outpatient Clinic for Refugees have been in Germany for more than 15 years without a final decision about their application for asylum. In the year 2004, 95.1% of applications for asylum were turned down (BAMF, 2005a).

Table 4-3: The ten countries of origin with the highest influx to Germany in 2005

Rank	**Country**	**%**
1	Serbia and Montenegro	19.1
2	Turkey	10.2
3	Iraq	6.9
4	Russian Federation	5.9
5	Vietnam	4.2
6	Syria; Arab. Republic	3.2
7	Iran	3.2
8	Azerbaijan	2.9
9	Afghanistan	2.5
10	China	2.2

Asylum seekers are confronted with many restrictions while they wait for the final decision concerning the pledge for asylum. For example, asylum seekers are resident in reception centers and usually have to stay in community accommodations during the legal procedure (§§ 47, 53 AsylVerfG). According to § 6 FlüAG (law on the assignment and admission of refugees ("Flüchtlingsaufnahmegesetz") of Baden-Württemberg, asylum seekers are entitled to 4.5 square meters of living-area plus usage of common rooms (e.g. kitchen, bath room, living room). Usually, the "personal" living area is part of a shared room. In addition, persons involved in the application procedure are not allowed to leave the administrative district (§55 AsylVerfG). During the first year, the applicant is not allowed to work (§61 AsylVerfG). Afterwards it remains difficult to find employment, especially for persons with exceptional leave to remain.

5 Psychological Consequences of Organized Violence

A number of surveys report high levels of psychiatric morbidity among traumatized refugee populations (J.T. de Jong et al., 2001; Mollica, Sarajlic, Chernoff, Lavelle, Vukovic, & Massagli, 2001; Naeem *et al.*, 2005). Among the different psychiatric conditions, posttraumatic stress disorder has an exceptional position as the disorder most often noticed. Also high prevalence rates of depressive affective disorders are being found (Carlson & Rosser-Hogan, 1991; Marshall, Schell, Elliott, Berthold, & Chun, 2005; Mollica, McInnes, Sarajlic, Lavelle, Sarajlic, & Massagli, 1999). In addition, symptoms of anxiety, dissociation and somatization, as well as substance abuse are prevalent among survivors of organized violence (de Girolamo & McFarlane, 1996; Ringold, Burke, & Glass, 2005).

5.1 Diagnosis of Posttraumatic Stress Disorder (PTSD)

The existence of a psychiatric disorder caused by a traumatic experience was already acknowledged about a century ago using expressions such as “battle fatigue”, “shell shock” or later, “rape trauma syndrome” (Foa & Meadows, 1997). Descriptions of reactions to overwhelming stress appeared in the International Classification of Diseases, ninth edition (IDC-9 WHO, 1978) and this proved to be one of the guiding principles for the original definition of PTSD in the third edition of the Diagnostic and Statistical Manual of the American Psychiatric Association (DSM-III, APA, 1980; Turnbull, 1998).

The DSM-III (APA, 1980) was the first to give official recognition to post-traumatic stress disorder as a distinct diagnostic classification. The current versions of DSM-IV (APA, 1994) and DSM-IV-TR (APA, 2000), respectively, as well as ICD-10 (WHO, 1992) offer diagnostic criteria for PTSD.

5.1.1 PTSD According to DSM-IV

The DSM-IV-TR differentiates 6 diagnostic criteria for a diagnosis of PTSD. According to this definition PTSD can only be diagnosed if the symptoms result from a traumatic experience.

According to the first criterion the traumatic event needs to be experienced or witnessed and involved the actual or perceived threat against the life or physical integrity of the person or

another person (A1 – objective). In addition, the immediate reaction of the victim must involve fear, terror or helplessness (A2 – subjective). Common stressors, such as financial loss, and bereavement do not fulfill Criterion A for the diagnosis of PTSD (Turnbull, 1998).

The symptoms of PTSD are defined in criteria B to D: intrusive symptoms, active avoidance and affective numbing, and arousal. Intrusive symptoms (criterion B) describe the chronic re-experiencing of the traumatic event in form of nightmares, flashbacks, stressful thoughts as well as emotional and physiological reactivity to reminders of the event.

Avoidance (criterion C) of stimuli that remind of the traumatic event can be differentiated into active and passive avoidance factors according to a factor analysis of PTSD symptoms (Foa, Riggs, & Gershuny, 1995). The active factor refers to the avoidance of reminders of the traumatic event like people and places that are associated with the event and the avoidance of talking and thinking about the event. Passive avoidance refers to emotional numbing as well as detachment from other people.

The third criterion refers to arousal symptoms (criterion D), such as sleeping and concentration difficulties, an exaggerated startle response and the enduring feeling of threat.

For a diagnosis of PTSD, the symptoms must last for at least four weeks (criterion E). An acute PTSD is diagnosed if the symptoms as a consequence of a traumatic experience last more than four weeks but less than three months. When the symptoms are present for more than three months, chronic PTSD is diagnosed (B.O. Rothbaum & Foa, 1993). When symptoms appear six months after the traumatic event, the term “delayed onset” is added to the diagnosis of PTSD. Finally, these symptoms must lead to significant impairment in social and / or work related functioning for a diagnosis of PTSD (criterion F).

If symptoms in reaction to a traumatic event are present within four weeks after the experience, the diagnosis of acute stress disorder (ASD) needs to be considered. The symptoms of ASD are similar to the PTSD symptoms with the exception of the time frame. In ASD, symptoms need to be present for at least two days to four weeks. If they persist longer, PTSD is diagnosed.

With regard to a differential diagnosis the DSM-IV refers to adjustment disorders, which are defined as an inability or maladaptive response to an identifiable stressful life event or stressor. Unlike criterion A in PTSD this stressor can be, e.g., a divorce or family crisis.

5.1.2 PTSD According to ICD-10

Post-traumatic stress disorder according ICD-10 (F43.1, WHO, 1992) is described as follows:

> Arises as a delayed or protracted response to a stressful event or situation (of either brief or long duration) of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress in almost anyone. Predisposing factors, such as personality traits (e.g. compulsive, asthenic) or previous history of neurotic illness, may lower the threshold for the development of the syndrome or aggravate its course, but they are neither necessary nor sufficient to explain its occurrence. Typical features include episodes of repeated reliving of the trauma in intrusive memories ("flashbacks"), dreams or nightmares, occurring against the persisting background of a sense of "numbness" and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia, and avoidance of activities and situations reminiscent of the trauma. There is usually a state of autonomic hyperarousal with hypervigilance, an enhanced startle reaction, and insomnia. Anxiety and depression are commonly associated with the above symptoms and signs, and suicidal ideation is not infrequent. The onset follows the trauma with a latency period that may range from a few weeks to months. The course is fluctuating but recovery can be expected in the majority of cases. In a small proportion of cases the condition may follow a chronic course over many years, with eventual transition to an enduring personality change (F62.0).

According to this definition, PTSD is regarded as a maladaptive response to severe or continued stress, in that it interferes with successful coping mechanisms and therefore leads to problems of social functioning. In contrast, DSM-IV classifies PTSD as anxiety disorder. An important difference concerning PTSD diagnosis between the two classification systems is the definition of the traumatic event (Leonhardt & Foerster, 2003). Both ICD-10 and DSM-IV require the presence of a stressor, but ICD-10 puts emphasis on the event itself, while DSM-IV on the person (Lopez-Ibor, 2002). In DSM-IV the experience has to fulfill both aspects of criterion A, the objective quality of a life-threatening event as well as the subjective reaction of fear and helplessness, to be coded as traumatic event. In ICD-10 the traumatic experience is defined in a more vaguely. Consequently, an event that is perceived as extremely threatening without objectively being dangerous does not meet the criteria according to DSM-IV, but could fulfill those according to ICD-10. In addition, the DSM-IV requires significant impairment in functioning to diagnose a psychiatric disorder (see symptom F); whereas ICD-10 keeps diagnosis and disability separate (Lopez-Ibor, 2002).

Accordingly, two studies found prevalence rates of PTSD to be twice as high when diagnosed according to ICD-10 than according to DSM-IV (Peters, Slade, & Andrews, 1999; Rosenman, 2002). Andrews and Slade (2002) found a concordance, or percentage of cases with a positive diagnosis in either classification system that had a positive diagnosis in both systems

of 35% for PTSD. According to Peters et al. (1999) the requirement of clinically significant distress or impairment in the DSM-IV accounts for 48% of discrepancies in prevalence rates. They report the symptom of general numbing in the DSM-IV to be an additional cause for the discrepancies between PTSD diagnoses according to ICD-10 vs. DSM-IV and conclude that PTSD according to ICD-10 cannot be assumed to be identical to PTSD according to DSM-IV.

The classifications are not identical and their parallel existence causes confusion in research and in the recording of health statistics. Research often uses the DSM-classification, since it is more restrictive (Rosenman, 2002). The ICD-10 is more frequently used and more valued for clinical diagnosis and training, among others, since all disorders – mental and physical – can be coded within one system, which is of relevance concerning administrative aspects as well as for health care providers. According to Mezzich (2002) the more frequently used diagnostic system across 66 countries is the ICD-10 (86% for clinical care, 72% for clinical training, 63% for research), followed by the DSM-IV (51% for clinical care, 60% for training, 78% for research).

5.1.3 Complex PTSD

A diagnostic concept of "complex" PTSD is repeatedly being proposed and discussed (Herman, 1992; Resick, Nishith, & Griffin, 2003). The diagnostic framework, spanning both DSM axes I and II, is defined as consequence of type II traumatic events, such as childhood sexual abuse or events that repeatedly occur over a long-time period, e.g. torture-experiences. Type I traumatic events are considered to be single exposures like an accident or rape and lead to "simple" PTSD.

Complex PTSD is proposed as a further diagnostic category referred to as "Disorders of Extreme Stress, Not Otherwise Specified" (DESNOS; Pelcovitz, van der Kolk, Roth, Mandel, Kaplan, & Resick, 1997). However, it is yet to be formally included in the DSM-IV in form of associated features of simple PTSD (APA, 1994). Support was found for alterations in seven areas: regulation of affect and impulses, attention and consciousness, self-perception, perception of the perpetrator, relations with others, system of meaning, and somatization (Korn & Leeds, 2002). Although Pelcovitz and colleagues (1997) found complex PTSD to be co-morbid with PTSD, Ford (1999) demonstrated the two concepts to be independent. Symptoms defined as part of complex PTSD are often related to or are part of other syndromes that can occur in trauma survivors, or they are diagnoses in their own right. The diagnosis of complex PTSD is rarely mentioned in prevalence or treatment studies.

5.2 Prevalence rates of PTSD

The prevalence of Posttraumatic Stress Disorder (PTSD) has been widely studied. Research has put its focus on the prevalence of this disorder after specific experiences (e.g., war or rape) as well as in specific samples (e.g., community vs. veterans, male vs. female, help-seeking persons vs. others). The following chapter is introduced to allow insight into the prevalence patterns of PTSD subject to specifications mentioned above.

5.2.1 Prevalence of PTSD in Community Samples

Since the introduction of diagnostic criteria for PTSD and the development of standardized diagnostic instruments (CAPS, Blake *et al.*, 1995; SCID, First, Spitzer, Williams, & Gibbon, 2000; e.g., PDS, Foa, 1995a) the prevalence of traumatic events and of PTSD has been widely studied. However, even though standardized instruments have been developed, a variance of prevalence rates is being reported. These differences are due to different aspects.

Changes in prevalence rates from 1987 until 2002 reflect a change in the definition of criterion A, the traumatic event, from DSM-III to DSM-IV. The new definition broadens the rage of "qualifying" events beyond the core category that had initially been used to define PTSD, i.e., military combat, war, disaster, and criminal violence (Breslau, 2002, 1998). One of these further events was, for example, the sudden loss of a loved one. In addition, the acknowledgement of the impact of traumatic experiences changed over time. The variance of lifetime prevalence rates of traumatic events can be ascribed to different definitions of criterion A in DSM-IV (Breslau, 2002). Some studies ask for the "worst" experience of a person, when probing for PTSD (Breslau et al., 1998; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995), others diagnose PTSD considering those events, that are traumatic according to DSM-IV criterion A1 (B. L. Green *et al.*, 2000) and A1 and A2 (Perkonigg, Kessler, Storz, & Wittchen, 2000), respectively.

Differences in prevalence rates can also be attributed to factors such as data collection, implemented instruments, age ranges, locations and countries, in which data collection takes place. Concerning the actual interview situation, the load of gathered information changes whether questions are open-ended or specific, whether survivors are identified on the basis of a broad screening question or a series of more detailed questions, and whether the person is interviewed by telephone or in person.

However, variances in prevalence rates are also due to different samples. Usually, studies of community samples result in lower prevalence rates than surveys concerning a distinct group of people, who have been exposed to at least one traumatic experience (see Breslau, Davis, Andreski, & Peterson, 1991: 11,3% vs. 30.7% in women and 6% vs. 14% in men; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993: 12.3% vs. 17.9% in women).

Studies using the DSM-III find lifetime prevalence rates of about 1% (Helzer, Robins, & McEvoy, 1987) to 3% (Shore, Vollmer, & Tatum, 1989), whereas later studies, using DSM-IV, report prevalence rates of 1% to 14% (Breslau et al., 1998; Kessler et al., 1995; Maercker, Michael, Fehm, Becker, & Margraf, 2004; Perkonigg et al., 2000; Rosenman, 2002; Tagay, Herpertz, Langkafel, & Senf, 2005; Yehuda, 1999).

The majority of studies reports lifetime prevalence rates between 7.8% (Kessler et al., 1995), 7.9% (Ozer, Best, Lipsey, & Weiss, 2003), and 9.2% (Breslau et al., 1998). These numbers are quite homogenous considering the fact, that the numbers concerning lifetime prevalence of traumatic events show a great variance, e.g. 17.7% in women and 26% in men (Perkonigg et al., 2000), 51.2% in women and 60.7% in men (Kessler et al., 1995), 63.1% (Tagay et al., 2005), 89.6% (Breslau et al., 1998). Looking at help-seeking persons, Mueser et al. (1998) found in a group of severely mentally ill people a lifetime prevalence rate of 98% of at least one traumatic experience. Women's risk of PTSD following exposure to trauma is approximately 2-fold higher than that of men – as is being reported for community samples (Breslau et al., 1998; B.L. Green, 1994; Kessler et al., 1995).

Although a history of trauma is common, the diagnosis of PTSD is often undiagnosed in clinical practice (Howgego, Owen, Meldrum, Yellowlees, Dark, & Parslow, 2005). Mueser et al. (1998) found that more than 43% of their psychiatric patients fulfilled the criteria for PTSD, but only 2% had this diagnosis in their charts.

Regarding the longitudinal course of PTSD, Breslau and Davis (1992, 1998) found a remission rate of about 60% one year after the first diagnosis of PTSD. This rate is supported by findings of Kessler et al. (1995), who find remission rates of two thirds in symptoms within the first year. In a group of adolescents and young adults Perkonigg et al. (2005) report a remission of 52% in the follow-up period of 34-50 months, whereas the remaining 48% did not significantly change.

5.2.2 PTSD in Survivors of Organized Violence

The expression "survivors of organized violence" subsumes a great variety of individual histories of violent and traumatic experiences. These histories of individuals can be condensed into different groups of people such as former prisoners of war (POWs), internally displaced people, resettled refugees, refugees without permit to stay and asylum seekers.

Surveys on survivors of organized violence report overall higher rates of psychiatric morbidity compared to prevalence rates in US community studies (de Girolamo & McFarlane, 1996). Numerous studies on former prisoners of war (POWs) and refugees report great ranges of PTSD prevalence rates, ranging 10.7% to 90% (Carlson & Rosser-Hogan, 1991; Cheung, 1994; J.T. de Jong et al., 2001; Gorst-Unsworth & Goldenberg, 1998; Mollica, McInnes, Pham, Smith Fawzi, Murphy, & Lin, 1998a; Mollica et al., 1999; Sabin, Lopes Cardozo, Nackerud, Kaiser, & Varese, 2003; S. M. Weine *et al.*, 1998b). All groups of subjects have among others been exposed to war, perpetration, and state sponsored violence. Besides different countries of origin also methodological differences exist between the studies concerning size and composition of the samples, as well as concerning the diagnostic instruments. These differences might explain to some extend the variance in prevalence rates.

5.2.2.1 Former Political Detainees and Prisoners of War (POW)

The prevalence rates in this group of survivors range from 84% to 54% lifetime PTSD and 59% to 20% current PTSD (Bichescu, Schauer, Saleptsi, Neculau, Elbert, & Neuner, 2005; Engdahl, Dikel, Eberly, & Blank, 1997; Maercker & Schutzwohl, 1997; Z. Solomon & Dekel, 2005). Imprisonments took place 9 to 48 years ago, indicating that PTSD symptoms may persist even over several decades.

Solomon & Dekel (2001) report in their 12-year follow up, that 18.2% of those who have not been diagnosed with PTSD at pretests fulfilled the criteria at the posttests. In a retrospective study by Port and colleagues (2005) a comparable pattern was found. They report that symptoms were highest shortly after the war, declined for several decades, and increased within the past two decades before the survey.

5.2.2.2 Refugees

In a systematic review Fazel and colleagues (2005) report PTSD prevalence rates of 8% to 10% in adult refugees resettled in high-income western countries, emphasizing studies of more than 200 individuals. Besides a substantial heterogeneity of the samples and findings, the larger studies used Far East samples, and most involved samples resident in the United States. In a comment on this review, Miller and colleagues (2005) point out that if all eligible studies but these are analyzed, the PTSD prevalence is 31%. They further argue, that the filter on well-to-do-countries precludes generalizing to prevalence and needs in other contexts, including regions closer to the sites of trauma. In addition, refugees referred for health-care services were excluded which might lead to an underestimation of psychiatric rates. These individuals are probably those ones with high co-morbidity rates and could therefore represent the most distressed and needy group of refugees. Furthermore, the USA hosted 5% of the world's refugees at the end of 2003 (UNHCR, 2004). Conversely, looking at the refugee country of origin, none of the top seven sources in 2003 provided a sample for the review. A further limitation of the study above is the focus on adults since 43% of the refugees are younger than 18 years (UNHCR, 2004). In addition, refugees who are living in exile have already undergone various stages of selection, such as ability and resources for a – successful - flight, surviving an escape, choice of host country, in which the pledge for asylum is pursued, dealing with authorities, initiation and use of medical treatment. The later circumstances show, that refugees in exile represent a highly selected sample and needs therefore to be taken into account when discussing PTSD prevalence rates in refugees in general. Accordingly, the results by Fazel et al. (2005) should not be generalized to the world wide refugee population and studies on different groups of refugees should be taken into consideration when looking at prevalence rates of PTSD in this population.

5.2.2.2.1 Resettled Refugees in Western Countries

Studies on resettled refugees in the United States of America found prevalence rates of 50% in Afghan refugees (up to 10 years in USA; Malekzai *et al.*, 1996) and 86% (m = 4.6 years in USA; Carlson & Rosser-Hogan, 1991) and 62% (2 decades in USA; Marshall et al., 2005) in Cambodian refugees. Mollica and colleagues (1998a) found 90% PTSD in Vietnamese ex-political detainees who have newly resettled into the US, whereas Ai et al. (2002) found a rate of 60.5% PTSD in newly resettled Kosovar refugees. The later study left out criterion A2 and F, so that the actual PTSD rate according to DSM-IV might be lower. Weine and colleagues (2000) found in a group of Bosnian refugees resettled in the Chicago area, that of those

who presented for mental health service, 100% met symptom criteria of PTSD but of those who did not present 70% were diagnosed with PTSD.

Al-Saffar et al. (2003) controlled for probable PTSD rates in a Swedish outpatient clinic in four ethnic groups, leaving out criterion A. They report an overall PTSD rate of 46% which can be allocated to the four ethnic groups as follows: 69% Iranians (refugees), 59% Arabs (refugees), 53% Turks (working permit), 29% Swedes.

Contrary to these findings, a study on resettled Vietnamese refugees in Australia reports a prevalence rate of 1.5% PTSD (Steel, Silove, Chey, Bauman, Phan, & Phan, 2005). These refugees immigrated to Australia about 11 years ago. The authors conclude that mental health problems can improve after the immediate post displacement period and that the health-seeking behavior becomes similar to the Australian population. The first conclusion is not supported by the other studies mentioned above. In chapter 5.4 risk and resilience factors are discussed, which are of great influence on the development of PTSD symptoms.

5.2.2.2.2 Not Resettled Refugees and Asylum Seekers in Refugee or Reception Camps in Western Countries

Comparing resettled refugees and asylum seekers, Gerritsen and others (2005) found, that more asylum seekers not only considered their health to be poor, but also had significantly more symptoms of PTSD and depression and anxiety as compared to the resettled refugees.

A review of PTSD prevalence rates in asylum seekers and refugees living in reception centers presents rates from 11% to 65% (Gerritsen, Bramsen, Deville, van Willigen, Hovens, & van der Ploeg, 2004).

Other studies report even higher rates of PTSD in asylum seekers. Leth and Banner (2005) found 73% PTSD in male tortured asylum seekers in Denmark. Moisander and colleagues (2003) reviewed the records of the Swedish Centre for Trauma and Torture Survivors (CTD). According to the files, 79.8% (69%-92%) of the refugees fulfilled the criteria for PTSD according to DSM-IV. Included in this data analysis were refugees from six different countries of origin with PTSD prevalence rates as follows: Bangladesh 83.3%, Iran 91.7%, Peru 86.7%, Syria 68.85%, Turkey 78.91%, Uganda 70%. Asylum seekers in both studies have claimed to have been tortured and were sent to Centers for Torture Victims for a thorough examination. The results were sent to the immigration service and used for decisions on the pledges for asylum. The numbers are comparable with PTSD rates of patients at the Psychotrauma Research and Outpatient Clinic for Refugees (PROCR) of the University of Konstanz, Germany, with

PTSD prevalence rates of 85% to 86% in the years 2002 to 2004 (PROCR, 2003, 2004). Refugees are usually referred to the PROCR through social workers, volunteer workers, aid organizations, and immigration authorities, because of mental health problems consequent to surviving organized violence and torture. The examination of less specific samples of refugees and asylum seekers leads to PTSD rates of 37% to 52% (Silove, Sinnerbrink, Field, Manicavasagar, & Steel, 1997; Turner, Bowie, Dunn, Shapo, & Yule, 2003; Van Velsen et al., 1996).

Gäbel and colleagues (2006) found a prevalence rate of 40% current PTSD among newly arrived asylum seekers in Germany.

5.2.2.2.3 Refugees and Asylum Seekers in Detention Centers

Australia is the only Western country that enforces a policy of mandatory detention for asylum seekers arriving without entry documents. A study on Tamil asylum seekers compared those held in detention and compatriots applying for refugee status while living in the community (Thompson, McGorry, Silove, & Steel, 1998). The detained group reported greater exposure to torture and other forms of persecution in their home country, and they manifested much higher levels of depression, panic, post-traumatic stress symptoms, somatic distress, and suicidal urges compared with the community group. Although limited by unavoidable sampling constraints, the study does suggest, that asylum seekers who face extreme threats are the subgroup most likely to leave their homelands in haste and without documentation, hence placing themselves at greater risk of being detained at the point of entry to a western country. Instead of providing special care for the most traumatized individuals fleeing persecution, western countries may be subjecting them to the very conditions that are likely to hinder psychosocial recovery. Among detained asylum seekers, 85% acknowledged chronic depressive symptoms, with 65% having pronounced suicidal ideation (Sultan & O'Sullivan, 2001). Steel and colleagues (2004) found in a retrospective study on detained asylum seekers, that 50% fulfilled the criteria for PTSD prior to detention and 86% had PTSD after 4 months to 2 years of detention. A major depressive disorder was diagnosed in 21% prior to detention and in 100% at the time of the survey.

5.2.2.2.4 Studies on IDPs in the Country of Origin and on Refugees in Developing Countries Close to the Sites of Trauma

Comparing Bosnian refugees in the UK and internally displaced people (IDP) who remained in Bosnia, Hunt and Gakenyi (2005) found overall higher rates of traumatic symptoms in refugees, with 77% of the refugees scoring above the cut-off point on the Impact of Events Scale (IES-R; Weiss & Maramar, 1997) in comparison to 45% of nonrefugees.

Studies on refugees living in camps close to their country of origin report PTSD prevalence rates of 37% in Bosnian refugees in Croatia (Marusic, Kozaric-Kovacic, Folnegovic-Smalc, Ljubin, Zrncic, & Ljubin, 1995) and Cambodian refugees in Thailand (Mollica, McInnes, Poole, & Tor, 1998b), 40.5% and 14.5% in tortured and nontortured Bhutanese refugees in Nepal (Van Ommeren *et al.*, 2001b), and 46% in Sudanese refugees in Uganda (Karunakara *et al.*, 2004). Looking at refugees, who seek help in a psychiatric clinic, the PTSD prevalence rises as high as 80%, e.g. in Afghan refugees in Pakistan (Naeem et al., 2005).

Examining survivors of war and mass violence who stayed in their home countries, the prevalence rate of PTSD ranges between 15.8% and 48% (J.T. de Jong et al., 2001; Karunakara et al., 2004) in countries such as Sudan, Uganda, Ethiopia, Algeria and Gaza, with the one exception of 99% PTSD rate among residents and IDP of Freetown, Sierra Leone (K. de Jong, Mulhern, Ford, van der Kam, & Kleber, 2000). A study on Bosnian returnees from the country of asylum (Switzerland) found a PTSD prevalence of 23.5% (Eytan et al., 2004).

5.2.2.3 Long-term Development of PTSD in Survivors of Organized Violence

Remission of PTSD symptoms in survivors of organized violence is highest within the year after first diagnosis of PTSD as in community samples (50%), whereas it is only as high as about 30% in refugee populations (S. M. Weine et al., 1998b). Comparable remission rates of about 35% after 3 years and 30% after 12 years were found among Bosnian (Mollica et al., 2001) and Cambodian refugees (Sabin et al., 2003; Sack, Him, & Dickason, 1999), respectively. In the former study a fluctual course of PTSD symptoms was found, with 16% of respondents being asymptomatic at pretests and having developed PTSD and/or depression at posttests. Even after 20 years living in a refugee camp in Mexico 11.8% of the examined Guatemalan refugees fulfill the criteria of PTSD (Sabin et al., 2003).

5.2.2.4 Conclusion

The studies presented above indicate, that survivors of organized violence are a highly burdened population with overall higher rates of PTSD symptoms and other psychiatric disorders as presented below and with lower spontaneous remission rates than in community samples, indicating special needs. Several studies on refugees living in exile and asylum seekers indicate certain pre- and post migration stressors, which add to the psychological consequences of traumatic experiences (Cheung, 1994; Gerritsen et al., 2005). Steel at al. (1999) report, that pre-migration stress contributed to 20% of the variance of posttraumatic stress symptoms, post-migration stress contributed an additional 14% of the variance. These aspects are introduced and discussed in chapter 6 on factors associated with flight and migration.

5.3 Co-morbid Disorders and Impairments

PTSD commonly co-occurs with other psychiatric disorders. Data from epidemiologic surveys indicate that up to 88.3% of men and 79.9% of women with PTSD meet criteria for at least one other psychiatric disorder, and about 59% of men and 44% of women have 3 or more psychiatric diagnoses in addition to PTSD (Brady, Killeen, Brewerton, & Lucerini, 2000; Kessler et al., 1995; Naeem et al., 2005; North, Kawasaki, Spitznagel, & Hong, 2004; Van Ommeren, de Jong, Sharma, Komproe, Thapa, & Cardena, 2001a).

Research on mental health in people who have a history of traumatic experiences, most often focuses, besides on PTSD, also on co-morbid psychiatric disorders (Bleich, Koslowsky, Dolev, & Lerer, 1997; Ramsay, Gorst-Unsworth, & Turner, 1993; Van Velsen et al., 1996). Especially the presence of PTSD in combination with affective disorders (depression, disthymia, bipolar disorders), anxiety disorders (general anxiety disorder (GAD), panic disorder, specific phobias), substance abuse, dissociation and somatization (Basoglu *et al.*, 2005; Brady, 1997; de Girolamo & McFarlane, 1996; Ramsay et al., 1993; Silove et al., 1997; Van Ommeren, Sharma, Sharma, Komproe, Cardena, & de Jong, 2002) has been found to be of importance concerning etiologic factors as well as concerning the development of therapeutic interventions for PTSD.

5.3.1 Affective Disorders

Co-morbidity of PTSD and depression has been documented in a diversity of trauma-affected populations. Wittchen and colleagues (2000) found in a community study that anxiety disorders are almost always primary conditions for depression. They also state that the number of anxiety disorders present, the persistence of anxious avoidance behavior and the degree of psychosocial impairment were the characteristics most strongly associated with the development of secondary depression.

The co-morbidity is lower in community samples, ranging from about 3.0% in women (Kessler et al., 1995; Maercker et al., 2004) and 5.5% in men (Shalev *et al.*, 1998) to 43.2% in survivors of civilian violence (Kessler et al., 1995).

Co-morbidity of depression in survivors of organized violence ranges from 5.1% and 7.6% in nontortured and tortured Bhutanese refugees (Van Ommeren et al., 2001a), to 14.3% in Tibetan Refugees (Holtz, 1998), to 20.6% in Bosnian refugees (Mollica et al., 1999), to 25% in asylum seekers in the UK (Van Velsen et al., 1996), to 38.8% in Guatemalan refugees (Sabin et al., 2003), to 42% in resettled Cambodian refugees in California, USA (Marshall et al., 2005), to 65% in Israeli veterans (Bleich et al., 1997), and 80% in resettled Cambodian refugees in North Carolina, USA (Carlson & Rosser-Hogan, 1991). Resettled refugees reported significantly lower rates of depression / anxiety as compared to asylum seekers (39.4% and 68.1%; Gerritsen et al., 2005).

Lifetime co-morbidity rates vary from 15.6% and 35.6% in nontortured and tortured Bhutanese refugees (Van Ommeren et al., 2001a) up to 95% in Israeli veterans (Bleich et al., 1997).

The studies presented above used different diagnostic tools, such as the Composite International Diagnostic Interview (CIDI; WHO, 1997) (e.g., Kessler et al., 1995; Van Ommeren et al., 2001a), which allows a diagnosis according to ICD-10 and DSM, and the Hopkins Symptom Checklist 25 (HSCL-25; Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974) (e.g., Carlson & Rosser-Hogan, 1991; Gerritsen et al., 2005; Holtz, 1998; Sabin et al., 2003), where rates above cut-off indicate clinical significance of depressive symptoms. Other studies assessed co-morbidity of depression using the Structured Clinical Interview for DSM-IV (SCID; First et al., 2000) (e.g., Shalev et al., 1998) or the Diagnostisches Interview bei psychischen Störungen (DIPS; Margraf, Schneider, & Ehlers, 1994) (e.g., Maercker et al., 2004), which allow diagnoses according to DSM. The use of different instruments can result in diverse prevalence rates. Other influences on prevalence rates can again be the sample type, type of

trauma, time since trauma as well as living conditions. In a camp for Bhutanese refugees in Nepal, for example, aid organizations offered treatment, which was not controlled for in the studied sample (Van Ommeren et al., 2001a).

Since PTSD is frequently co-morbid with depression, Leo Sher (2005a, 2005b) suggests that the association is not coincidental. He argues that several epidemiological as well as neurobiological studies indicate that individuals with co-morbid PTSD and depression differ from individuals with PTSD alone and depression alone (e.g., Momartin, Silove, Manicavasagar, & Steel, 2004). It might be possible that some or all individuals diagnosed with co-morbid PTSD and depression have a separate psychobiological condition that Sher proposes as "post-traumatic mood disorder". Contrary to this suggestion other studies found that PTSD and Major Depressive Disorder are different and should be considered as diagnoses of its own (Bleich et al., 1997; Frueh *et al.*, 2000; Van Ommeren et al., 2002).

5.3.2 Anxiety Disorders

Clinically significant co-morbid anxiety symptoms according to HSCL-25 (Derogatis et al., 1974) range among refugees from 41.4% (Holtz, 1998) to 54.4% (Sabin et al., 2003). The diagnosis of co-morbid general anxiety disorder is present in community samples in 2.5% of women and in 4.5% of men diagnosed with PTSD. In refugees, the prevalence ranges from 5.6% to 20.6% of PTSD cases (Holtz, 1998; Van Ommeren et al., 2001a; Van Velsen et al., 1996).

5.3.3 Substance Use Disorders (SUD)

Substance use disorder is also frequently found among patients with PTSD. Kessler and colleagues (1995) found an overall rate of substance use disorders of 21.7% among individuals with PTSD in the National Co-morbidity Study. This number is divided into 51.9% of alcohol abuse/dependence and 34.5% of drug abuse/dependence among men. The rates for women were 27.9% for alcohol abuse/dependence and 26.9% for drug abuse/dependence, respectively. In a survey on Israeli veterans, Bleich et al. (1997) found a co-morbidity of alcoholism of 12% lifetime and 7% current and of drug use disorder of 7% lifetime and 5% current. Bichescu and colleagues (2005) report a rate of 37.2% of co-morbid substance use disorder in former POWs.

Another perspective on the prevalence of this particular co-morbidity comes from surveys of those seeking treatment for substance use disorders, which reveals that between 25% and

58% of these individuals have co-morbid PTSD (Recupero, Brown, & R., 1994; Triffleman, Marmar, Delucchi, & Ronfeldt, 1995).

5.3.4 Dissociation

Dissociative symptoms are discussed in the context of PTSD, with greater exposure to traumatic stress being related to more dissociative experiences, regardless of ethnicity (Zatzick, Marmar, Weiss, & Metzler, 1994).

Using the Dissociative Experiences Scale, Carlson and Rosser-Hogan (1991) found high rates of dissociation, with 96% of the Cambodian Refugees investigated scoring above the normal range. In an outpatient clinic sample 82% of individuals with PTSD and 66% of those with lifetime PTSD were diagnosed with dissociation (van der Kolk, Pelcovitz, Roth, Mandel, McFarlane, & Herman, 1996). Van Ommeren and colleagues (2001a) found rates of dissociative disorders of 19.4% lifetime and 17.9% current in tortured and 4.6% lifetime and 3.3% current in nontortured Bhutanese refugees, respectively, indicating that these were chronic disorders. Bichescu et al. (2005) found dissociative disorders in former POWs even 44 years after imprisonment, using the SCID. Among the survivors 33.9% fulfilled the criteria of co-morbid dissociative disorders according to DSM-IV. The authors also report a significant association of current PTSD and less psychotherapeutic support and showed significantly more dissociative disorders.

5.3.5 Somatization

Van Ommeren and colleagues (2002) report a significant association of PTSD with non-specific somatic complaints. Bichescu et al. (2005) found a rate of 47.5% somatization symptoms in a group of Romanian former political detainees.

Other studies found, that a diagnosis of PTSD is predictive of poor health (Lauterbach, Vora, & Rakow, 2005; Spiro, Hankin, Mansell, & Kazis, 2006) and that PTSD symptoms appear to be more frequent in patients with recurrent headaches than for nonpatient populations (de Leeuw, Schmidt, & Carlson, 2005). Kang and colleagues (2005) report, that former POWs of World War II with PTSD also had statistically significant increased risks of cardiovascular diseases including hypertension and chronic ischemic heart disease when compared to both non-POWs and POWs without PTSD.

5.4 Risk and Resilience Factors in PTSD

Extensive research is conducted on risk and resilience factors concerning PTSD. The studies find a broad range of risk and resilience factors. However, some results are inconsistent.

Emily Ozer and colleagues (2003) conducted a meta-analysis on $n = 68$ studies on predictive factors for PTSD in the general population. In support of the results of others (Birmes *et al.*, 2003; Breslau, 2002; Brewin, Andrews, & Valentine, 2000) they conclude that PTSD symptoms are not a coincidental reaction to traumatic experiences. As described above (see 5.2.1) the lifetime prevalence of traumatic experiences is high compared to the lifetime prevalence of PTSD following such an experience. The aforementioned studies found two classes of predictors: (a) characteristics of the individual or his/her life history that were more distal to the traumatic event and produced average coefficients smaller than .20 (i.e., gender, age, education, socioeconomic status, IQ, and race in Brewin et al., 2000; prior adjustment, prior history of trauma, and family history of psychopathology in Ozer et al., 2003); and (b) stronger predictive factors yielding coefficients greater than .20 that were more proximal to the traumatic event (i.e. intercurrent life stress in Brewin et al., 2000; perceived life threat, perceived support, peritraumatic emotionality, and peritraumatic dissociation in Ozer et al., 2003). Moderating factors were found to be "time elapsed since the event" and "method of assessment". In addition, Brewin and colleagues (2000) report that only factors during or after the trauma, such as trauma severity, lack of social support, and additional life stress, had somewhat stronger effects than pretrauma factors.

The studies included in the meta-analysis by Ozer and others (2003) covered a great variety of traumatic experiences (natural disaster vs. man made; accident vs. purpose; rape, war etc.). Also the samples, the individual amount (number and severity), as well as the individual compensating characteristics (age at traumatic experience, recurrent experiences, time relapsed since event, support, and environment etc.) vary across the studies.

The majority of studies focus on certain aspects in relation to a traumatic experience and PTSD, respectively.

5.4.1 Risk Factors

A prospective study on fire fighters report that the personality traits hostility and low level of self-efficacy at baseline accounted for 42% of the variance in PTSD after 2 years (Heinrichs, Wagner, Schoch, Soravia, Hellhammer, & Ehlert, 2005). Also pretrauma catastrophic thinking was found to be a risk factor in fire fighters, accounting for 24% of variance (Bryant & Guthrie, 2005). In a prospective, longitudinal epidemiological study of adolescents and young adults Perkonigg and others (2005) found that respondents with a chronic course were more likely to experience new traumatic event(s) during follow-up, to have higher rates of avoidance symptoms at baseline, and to report more help seeking behavior, compared to respondents with remission. Rates of incident somatoform disorder and other anxiety disorders were also significantly associated with a chronic course.

The severity of the traumatic event is repeatedly named as predictive factor for PTSD (Engdahl et al., 1997; Lie, 2002; Silove, Steel, McGorry, Miles, & Drobny, 2002), also in studies on the longitudinal course of trauma (Gold, Engdahl, Eberly, Blake, Page, & Frueh, 2000; Steel, Silove, Phan, & Bauman, 2002). Age at capture was also found to be predictive for PTSD (Engdahl et al., 1997).

Other studies point out, that trauma-related persistent dissociation, peritraumatic dissociation and acute stress would predict PTSD (Birmes et al., 2003; Briere, Scott, & Weathers, 2005). Since Briere and colleagues (2005) found that peritraumatic dissociation ceased to predict PTSD at a multivariate level, they conclude that it is less what happens at the time of a trauma (e.g., disrupted encoding) that predicts PTSD than what occurs thereafter (i.e., persistent avoidance). In contrast, Richard Bryant (2005) concludes in a review that whereas acute dissociation is an important factor in the acute stress response, many people develop PTSD in the absence of dissociative symptoms. Accordingly, the evidence suggests that dissociation needs to be considered in the context of other factors in the aftermath of trauma if optimal identification of high-risk individuals is to be achieved. In an earlier paper, Bryant (2003) already proposed that there may be greater utility in focusing on the interaction between symptoms, biological responses, and cognitive factors on predicting who will develop PTSD, than solely focusing on a diagnostic category or constellation of symptoms as a marker of acutely traumatized people who are at risk of developing PTSD. However, North and colleagues (2004) report, that co-morbidity with Major Depression determined whether the PTSD would have remitted by 1 year later.

A study concerning cognitive factors as predictors of PTSD in survivors of physical or sexual assault found the following variables which predicted PTSD severity significantly: cognitive processing style during assault (mental defeat, mental confusion, detachment); appraisal of assault sequelae (appraisal of symptoms, perceived negative responses of others, permanent change); negative beliefs about self and world; and maladaptive control strategies (avoidance/safety seeking) (Dunmore, Clark, & Ehlers, 2001). Ehlers and others (1998) report that survivors of rape rather suffer from chronic PTSD and benefit less from exposure therapy if they experienced mental defeat, an overall feeling of alienation and a feeling of permanent change, respectively, as compared to survivors who have not experienced these feelings. Permanent change in terms of objectively and subjectively perceived consequences can function as continuous reminders of the traumatic experience and thereby hinder it to become a concluded part of one's past so that they are a source of chronic strain. A factor analysis on retrospectively collected data by Basoglu and colleagues (2005) revealed a factor called fear and loss of control associated with perceived threat from those held responsible for trauma which was most strongly associated with PTSD and depression.

Cheung (1994) found in Cambodian refugees a significant association between PTSD and amount of traumatic experiences, coping strategies as well as post-migration stressors. With regard to refugees living in exile, Silove et al. (1997) report that a diagnosis of PTSD was associated with greater exposure to pre-migration trauma, delays in processing refugee applications, difficulties dealing with immigration officials, obstacles to employment, racial discrimination, and loneliness and boredom. Others found, that a greater number of war traumas and a greater number of resettlements lead to an increased risk for PTSD and Major Depression, and that financial distress leads to an increased risk of Major Depression (Blair, 2000).

Further factors associated with pre and post migration stressors and their influence on psychiatric morbidity as well as quality of life are discussed in chapter 6 (see below).

5.4.2 Resilience Factors

A number of protective factors are discussed. Surveys concerning protective factors in refugees and survivors of organized violence come up with different results. Basoglu et al. (1994b) state, that prior knowledge of and preparedness for torture, strong commitment to a cause, immunization against traumatic stress as a result of repeated exposure, and strong social supports appear to have protective value against PTSD in survivors of torture. They consequently discuss, whether the resistance found towards the development of PTSD could be ex-

plained by a lack of beliefs concerning safety, trust and justice (Basoglu *et al.*, 1996), since the politically active respondents were found to score lower as compared to not politically active people. A subsequent survey supported this hypothesis (Basoglu, Mineka, Paker, Aker, Livanou, & Gok, 1997). The authors found that tortured, but not politically active people underwent less severe maltreatment in comparison to politically active persons, however the former were found to have more psychopathology, i.e. anxiety, depression, and PTSD. They conclude, that less psychological preparedness towards torture is associated with higher rates of perceived stress during torture and therefore leads to more severe psychiatric pathology. Less psychological preparedness accounted for 4% of the variance with regard to general psychopathology and 9% of the variance concerning PTSD symptoms. Holtz and colleagues (1998) also conclude that political commitment and prior knowledge of and preparedness for confinement and torture can be protective factors. Bichescu and others (2003) found that former political detainees with political commitment were found to have significantly more remitted than current PTSD as compared to detainees with less political commitment, suggesting that political commitment might also influence recovery. In addition, deeply held belief systems affecting life-views may impart significant resilience to developing stress-related problems, even under extreme conditions (Kaplan, Matar, Kamin, Sadan, & Cohen, 2005). The later further conclude, that religiousness combined with common ideological convictions and social cohesion was associated with substantial resilience as compared to a secular metropolitan urban population. Religious belief as protective factors has repeatedly been reported (Allden, Poole, Chantavanich, Ohmar, Aung, & Mollica, 1996; Holtz, 1998; Shrestha *et al.*, 1998). A firm belief system – either religious or political – was also found to be a predictor for a better therapy outcome (Brune, Haasen, Krausz, Yagdiran, Bustos, & Eisenman, 2002).

Other studies found characteristics such as hardiness towards stressors (Waysman, Schwarzwald, & Solomon, 2001), and camaraderie (Allden et al., 1996) in survivors of state sponsored violence, which were less likely to develop PTSD. Social support as protective factor in PTSD has repeatedly been reported (Engdahl et al., 1997; Gerritsen et al., 2005; Holtz, 1998). Furthermore an autonomous frame of mind during imprisonment is associated with resilience (Boos, Ehlers, Maercker, & Schuetzwohl, 1998). A persistent factor with regard to resilience to PTSD is social support, with the lack of social support increasing the risk of PTSD (e.g., Marmar *et al.*, 2006). However, traumatic experiences such as war, persecution, and natural disasters often lead to relocation of people, who in turn lose their social networks which could help in overcoming the traumatic event(s) (see e.g., Kilic *et al.*, 2006).

5.4.3 Dose Effect

The extent of the contribution of risk and resilience factors towards the development of PTSD seems to be mediated by the number of traumatic experiences. The phenomenon of increased risk and severity of PTSD in association with an increasing number of traumatic events is called "dose-effect", "dose-response", or "building block" and repeatedly been found in various studies (Al-Saffar et al., 2003; Eytan et al., 2004; Gold et al., 2000; B. L. Green et al., 2000; Mollica et al., 1998a; Mollica et al., 1998b; Silove et al., 1997; Smith Fawzi, Murphy, Pham, Lin, Poole, & Mollica, 1997). Accordingly, refugees with more than 3 traumatic events in their past are at higher risk concerning psychiatric morbidity even after 10 years, compared to refugees with less than three or no traumatic events in their past (12% vs. 3%)(Steel et al., 2002). Neuner and colleagues (2004a) report, that 23% of refugees who survived one to three traumatic experiences fulfill the DSM criteria for PTSD, whereas all refugees do so, after surviving 28 or more traumatic events.

In view of the cumulative effect of potentially traumatizing experiences concerning the development of chronic PTSD, the relevance of predictive and protective factors in survivors of organized violence is limited, since this group of people is repeatedly and over longer periods of time exposed to traumatic stressors. However, knowledge of risk and resilience factors is needed when planning treatment for survivors of organized violence suffering from PTSD. For example, the cognitions of defeat and helplessness in the traumatic situation predict the course of psychiatric symptoms. If a person continues to perceive helplessness in the time after the traumatic experience, a chronification of the condition might be fostered. Treatment should accordingly focus on decreasing the perceived helplessness in the patient. Another aspect is self-esteem, defined as firm belief system or autonomous frame of mind, which can prevent enduring chronification and is also needed in the recovery process. Also the social network is a crucial aspect in therapeutic work. Yet, the social support system is often disrupted in asylum seekers who had to flee their home country. Many of them had to travel alone; others, who left their country with their families, often cannot rely on their support since also the family members are impaired by traumatic experiences. Accordingly, the social support system and coping with a restricted network needs to be taken care of in the context of PTSD treatment. These different factors are interrelated and need to be emphasized in treatment with individuals. Cognitive-behavioral programs already try to integrate these aspects into treatment (see chapter 7).

5.5 Criticism of PTSD Concept

As described above, traumatic experiences can evoke Posttraumatic Stress Disorder. However, it is discussed whether, the concept of PTSD is valid (S. M. Becker, 1997; Somnier, Vesti, Kastrupp, & Kemp Genefke, 1992) and cross-culturally applicable as a reaction to a traumatic stressor (Summerfield, 1997).

Research on post-trauma reactions in nonwestern groups has mostly been conducted within the United States and Western Europe, to assess and meet the needs of refugees from developing countries (Terheggen, Stroebe, & Kleber, 2001). A review by de Girolamo and McFarlane (1996) found only 6% of epidemiological studies were conducted on refugees in their countries of origin. Among others, Bracken and colleagues (1995) argue, that because concepts such as PTSD implicitly endorse a Western ontology and value system, their use in non-Western groups should be, at most, tentative. They moreover found, that PTSD symptoms are often found in refugees, however the refugees themselves attributed their strain rather to somatic complaints than the traumatic experience. Weine and colleagues (1995) point out, that the types of trauma experienced by refugees may not be directed at individuals but at entire ethnic groups through genocide and ethnic cleansing. Such acts have been argued to be capable of causing "collective traumatization" (S. M. Weine, Kulenovic, Pavkovic, & Gibbons, 1998a), although ultimately symptoms will be experienced at individual level. Furthermore, some authors state, that labeling torture survivors as having PTSD would be much too inadequate a description of the complexity and magnitude of effects of torture (e.g., Berliner, Mikkelsen, Bovbjerg, & Wiking, 2004; Lira, Baker, & Castillo, 1990). In Western countries the diagnosis of PTSD might influence secondary benefits such as disability allowance, in the context of asylum seekers it might influence the judgment. However, PTSD is identified in a variety of cultures in respondents who receive no benefits from the diagnosis (J. T. De Jong, 2005). Moreover, clinical and biomedical empirical data in Western as well as non-Western countries lead to the conclusion that responses to trauma are global, not specific, and that trauma victims are likely to meet criteria for more than one DSM diagnosis (Carlson & Rosser-Hogan, 1991; Ekblad & Roth, 1997; Momartin, Silove, Manicavasagar, & Steel, 2003; Nemeroff, Bremner, Foa, Mayberg, North, & Stein, 2005; Pedersen, 2002). However, the intellectual embedding of traumatic experiences and the understanding of psychological processes can vary between different cultures and should be taken into consideration in the clinical work.

6 Exile Related Risk Factors for Mental Health Problems in Asylum Seekers

Little research exists concerning the needs and stressors related to living as an asylum seeker or refugee in exile, especially in the context of the mental health of asylum seekers (Silove, Steel, & Watters, 2000). In psychiatric fieldwork with asylum seekers, the interdependence of human rights, mental health and social development is self-evident, yet the current policies threaten both them. Instead of freedom, asylum seekers are kept in reception centers, often sharing one room with the whole family or with strangers; instead of being accorded respect and dignity, they are rejected as intruders; instead of receiving opportunities to regain their autonomy, they face restrictions, enforced dependency, discrimination and marginalization. In consulting with refugees, it is evident that people do not forsake their livelihoods, families and possessions unless there are compelling reasons. Silove and colleagues (2000) moreover report that the reverse is more common – even under severe threat, most choose to delay flight as long as possible in the hope that stability will return, and leave their homes only if a level of intensity is reached that threatens survival. Accordingly, many refugees have problems in the process of acculturation and suffer from homesickness even if they know, that they would be in danger in their home country, and that their families would be disrupted (van Willigen, Hondius, & van der Ploeg, 1995).

As discussed above, displaced people are at high risk of PTSD (see 5.2.2). Depressive and other co-morbid symptoms are repeatedly and in varying prevalence rates reported (see 5.3) (Smith Fawzi et al., 1997; Terheggen et al., 2001). A safe, supportive and predictable environment is important in the recovery process after massive traumata (see above and Silove, 1999). In addition, early recovery is important since remission is less likely the longer the symptoms persist (Kessler et al., 1995; S. M. Weine et al., 1998a).

Instead of gradual adaptation, a common pattern in refugees once they reach a place of safety, asylum seekers tend to show a deterioration in psychological functioning, substantially attributable to imposed restrictions (Reijneveld, de Boer, Bean, & Korfker, 2005; Silove, 2002). Asylum seekers are trapped in a continuum of threat, with conditions fostering a convergence and compounding of insecurities from the past, present and future. Memories of past dangers and humiliations intermingle with current feelings of uncertainty; this, in return, magnifies fears of future persecution should detainees be repatriated. Recollections of past impris-

onment merge with recurrent feelings of outrage at being confined behind razor wire in the country in which the asylum seeker has sought freedom (Steel et al., 2004). The future is perceived as being entirely in the hands of an 'impersonal bureaucracy', intensifying feelings of helplessness and loss of control over one's personal life. Silove and others (2000) found that the testing of refugee claims can provoke anxiety and, in those previously subjected to interrogation, torture and other abuse, dissociative reactions. Furthermore, during the inquiry, memories can become incoherent, interfering with the capacity to provide a consistent account. Yet, inconsistency is often cited as reason to dismiss a claim.

Considering the 1951 Refugee Convention, it gave centrality to the principle, that somewhere in the world, people fleeing persecution could feel assured of achieving refuge. When this faith is eroded, particularly in asylum seekers who have been waiting for a final court decision for a long time, psychological disintegration is likely. In such cases, depression is often diagnosed. Yet, underlying these symptoms is a capitulation to hopelessness when the asylum seeker is confronted with the reality that security and a life with dignity may be beyond reach. Sultan und O'Sullivan (2001) report concerning the average time spent in a reception center a time span of six months up to indefinite duration. Furthermore, the situation in refugee camps / reception centers in combination with legal stressors, such as a pending residence permit, affects the mental health of asylum seekers, especially of people, who have survived persecution and traumatic experiences before their flight (Steel & Silove, 2001; Sultan & O'Sullivan, 2001). Many asylum seekers experience a marked decline in socioeconomic status, as well as difficulties accessing health care (Schouler-Ocak, 2003; Sinnerbrink, Silove, Field, Steel, & Manicavasagar, 1997).

In the context of mental health, Silove and others (1997) report that PTSD in asylum seekers is associated with greater exposure to pre-migration trauma, delays in processing refugee applications, difficulties in dealing with immigration officials, obstacles to employment, racial discrimination, and loneliness and boredom. Eisenbruch (1991) reports in this context, that those refugees, who had the option to engage in at least some traditions in exile, felt better as compared to others, who felt rather restricted. Some authors state, that the individual recovery from PTSD is based upon the restoration of social and economical structures, cultural facilities as well as the respect for human rights (Bracken et al., 1995; Pedersen, 2002). Others found, that a greater number of war traumas, a greater number of resettlements and social isolation (Blair, 2000; K. E. Miller *et al.*, 2002) as well as poor language skills, unemployment, being in retirement or disabled, and living in poverty (Marshall et al., 2005) were associated with an increased risk for PTSD and Major Depression. Miller and colleagues (2002) suggest, that so-

cial isolation might be bidirectionally linked with PTSD. Concerning Major Depression, financial distress (Blair, 2000; Lavik, Hauff, Skrondal, & Solberg, 1996), daily activity and social isolation (K. E. Miller et al., 2002) were found to be risk factors. However, prerequisites for a residence permit are often proofs of integration such as employment or language skills. Yet, the former is mostly restricted. Often, asylum seekers are not allowed to work. If they have the permit to work, the working conditions are often bad because of poor education.

Migration stressors produce different consequences, which can add to the perceived stress. For example, Miller and colleagues (2002) found that those refugees who attended a mental health clinic were significantly less employed as compared to a community sample. Language skills on the other hand have been found to be impaired because of mental illness. Sondergaard and Theorell (2004) report that the symptom load of PTSD is inversely related to the speed of language acquisition. Many asylum seekers are trapped in a vicious cycle of pre- and post-migration stressors and related consequences with regard to social functioning, quality of life and mental health, which add to a predominant feeling of helplessness and hopelessness. Despite these findings, Steel and colleagues (2002) report, that – even though the conditions of post-migration environment influences the outcomes - trauma exposure was the most potent, and the only consistent, predictor of current mental health illness in resettled Vietnamese refugees, even when post-migration factors were taken into account. The authors conclude, that post-migration stressors might diminish after prolonged resettlement, but the effects of high exposure to pre-migration trauma can persist. In contrast, Lavik and others (1996) report that past traumatic stressors and current existence in exile constitute independent risk factors for mental disorders.

Van Willigen and others (1995) found that those refugees who had been to the Netherlands for more than a year presented higher average number of mental complaints than those who had been to the Netherlands for less than one year. Haasen and Yagdiran (2000) describe a phase of decompensation which takes place after 6 to 9 years living in exile. According to the authors, disorders such as substance use, psychotic disorders, affective disorders as well as stress disorders and somatoform disorders are likely to appear during that period of time – if they have not been present before.

Finally, it stands out, that mental health issues and circumstances in exile are interlinked and can interact. Therefore, it is necessary, to act on both sides. From the clinical point of view it is indicated, that multifaceted and comprehensive treatment is needed. In this context PTSD should be focused on at an early stage to avoid the disorder becoming chronic if possible.

7 Treatment of PTSD

Since the introduction of Posttraumatic Stress Disorder as an independent diagnosis in the DSM (APA, 1980), several specific psychotherapeutical as well as medical approaches for it's treatment have been developed. Previously, less specific approaches were used in the treatment of PTSD. Only few of these have been scientifically evaluated, even less so in the context of refugees in exile.

The National Institute for Clinical Excellence (NICE) in London, UK, published clinical guidelines concerning the management of PTSD (NICE, 2005). These guidelines have been established after consideration of the evidence available. The NICE identified – among others – the following recommendations as priorities for implementation:

Initial response to trauma

- For individuals who have experienced a traumatic event the systematic provision to the individual alone of brief, single-session interventions (often referred to as debriefing) that focus on the traumatic incident should **not** be routine practice when delivering services.

- Where symptoms are mild and have been present for less than 4 weeks after the trauma, watchful waiting, as a way of managing the difficulties presented by individual people with post-traumatic stress disorder (PTSD), should be considered. A follow-up contract should be arranged within 1 month.

Trauma-focused psychological treatment

- Trauma-focused cognitive behavioral therapy should be offered to those with severe post-traumatic symptoms or with severe PTSD in the first month after the traumatic event. These treatments should normally be provided on an individual outpatient basis.

- All people with PTSD should be offered a course of trauma-focused psychological treatment (trauma-focused cognitive behavioral therapy [CBT] or eye movement desensitization and reprocessing [EMDR]). These treatments should normally be provided on an individual outpatient basis.

Drug treatments for adults

- Drug treatments for PTSD should not be used as a routine first-line treatment for adults (in general use or by specialist mental health professionals) in preference to trauma-focused psychological therapy.

- Drug treatments (paroxetine or mirtazepine for general use, and amitriptyline or phenelzine for initiation only by mental health specialists) should

> be considered for the treatment of PTSD in adults who express a preference not to engage in trauma-focused psychological treatment. [Paroxetine is the only drug listed with a current UK product license for PTSD at the date of the publication (March 2005)].

It is further recommended to screen for PTSD using a brief screening instrument for PTSD 1 month after the event for individuals at high risk of developing PTSD following a major disaster. Concerning refugees and asylum seekers the guidelines advice a brief screening instrument as part of the initial refugee healthcare assessment and of any comprehensive physical and mental health screen.

Besides the NICE guidelines, the International Society for Traumatic Stress Studies (ISTSS) also proposed practice guidelines for the treatment of PTSD in adults (Foa, Keane, & Friedmann, 2000), which mainly agree with the NICE guidelines. The ISTSS guidelines were based on a review of treatment outcome studies, which fulfilled the "gold standards" as established by Foa and Meadows (1997):

1. Clearly defined target symptoms
2. Reliable and valid measures
3. Use of blind evaluators
4. Assessor training
5. Manualized, replicable, specific treatment programs
6. Unbiased assignment to treatment
7. Treatment adherence

Since the clinical practice differs from recommendations such as the NICE or the ISTSS guidelines as well as from settings of randomized controlled trials, the following section introduces different treatment approaches and efficacy evaluations, if available.

7.1 Psychotherapy for PTSD

The treatment literature reflects an enormous interest in discovering an effective cure for PTSD. A large quantity of original reports has been published describing the effectiveness of various treatments for the consequences of exposure to traumatic events, though the vast majority of these reports are case-history descriptions rather than systematic empirical studies. Besides the manual-based treatments or traditional theoretical orientations as will be explained below, psychotherapists also refer to e.g. Gestalt and family therapy oriented techniques to approach the complex condition of PTSD. Data with regard to their efficacy in the treatment of

PTSD is not yet available. This review focuses on different psychosocial treatments for PTSD for which empirical evidence concerning efficacy is available. Effect sizes are presented if available. The effect size according to Cohen's *d* is used as measurement of the efficacy of a treatment approach. It is defined as the difference between the means (M_1-M_2), divided by the pooled standard deviation, s, of either group or time point. An effect size of $d = 1$ stands for a symptom reduction of one standard deviation. Cohen (1988) defined effect sizes as "small, d = .2," "medium, d = .5," and "large, d = .8".

7.1.1 Psychodynamic Treatment Approaches

In an attempt to account for post-trauma reactions, psychodynamic theorists emphasize concepts such as denial, abreactions, catharsis, and stages of recovery from trauma in developing treatment for post-trauma difficulties. According to Horowitz' (1976) formulation, which is close to cognitive theories, the trauma symptoms are seen as the result of discrepancies between internal and external information. He saw the response to trauma as vacillating between the phase of denial (expressed with avoidance symptoms and emotional numbness) and intrusion (symptoms of intrusions and arousal). The intrusive phase is seen as an attempt to present information about the external event to the cognitive system to enable integration. If this integration fails, the person remains at the stage vacillation for a long time, which can be defined as the development of chronic PTSD. The brief, dose-related psychoanalytic treatment (Horowitz, 1976; Krupnick, 2002) is adjusted to fit the patient's phase of symptom expression. During the intrusive phase, the patient is encouraged to avoid disturbing memories and helped to control anxiety through a supportive therapeutic environment. During the avoidance phase, the patient is encouraged to confront memories with associations and abreaction.

A controlled trial found, that psychodynamic therapy was efficacious in comparison to the waiting list control group and as effective as desensitization (Brom, Kleber, & Defares, 1989). The mean treatment duration was 18.8 sessions in this short-term approach for PTSD according to Horowitz (1986). Effect size concerning self-rated symptoms was $d = 0.90$ (Van Etten & Taylor, 1998). Shalev and others (1996) as well as Foa and Meadows (1997) summarize several uncontrolled trials, which provide further clues that psychodynamic treatment may be effective in the treatment of PTSD, however, they point out, that further research is needed, employing more rigorous standards.

7.1.2 Hypnotherapy

Like psychodynamic therapy, hypnotherapy can encompass a variety of perspectives and objectives and like CBT it involves an element of exposure. In general, the goal of hypnotherapy is to allow the traumatized person to discharge repressed material and to integrate the traumatic event. Brom and others (1989) report one controlled trial, in which hypnotherapy was more effective as compared to a waiting-list control group. Again, self report measures were used, showing an effect size of $d = 0.94$ (Van Etten & Taylor, 1998). Limitations of this trial were a varying number of sessions across treatments as well as the lack of blind evaluators. In a recent randomized controlled trial (RCT) cognitive-behavioral therapy was compared with CBT plus hypnosis in the treatment of acute stress disorder, showing that the combined treatment resulted in greater reduction in re-experiencing symptoms at post-treatment than CBT alone (Bryant, Moulds, Guthrie, & Nixon, 2005).

7.1.3 Supportive Counseling (SC)

One of the few definitions of supportive counseling is provided by Foa and colleagues (1991), according to which patients were taught a general problem solving approach. Patients were moreover asked to keep a diary of daily problems and attempts of problem solving. Neither anxiety management nor exposure was included and patients were redirected to daily problems when starting to discuss the traumatic experience. Besides this form of SC a variety of mainly non-standardized supportive approaches are applied in the field and mentioned in the literature. According to Seidler (2002) stabilizing therapy elements are the core element of PTSD treatment.

Neuner and colleagues (2004b) define supportive counseling to the effect that a client's individual, social and cultural resources should be explored and strengthened. The focus of the treatment was on current interpersonal problems, personal decisions, as well as plans and hopes for the future, using a problem solving approach. The basic restriction of supportive counseling was to avoid talking about specific past traumatic events. In this trial supportive counseling was more effective in comparison with psycho-education but not as effective as narrative exposure therapy (see 7.1.6).

7.1.4 Cognitiv-Behavioral Treatments (CBT)

The most studied psychosocial treatments for PTSD are the cognitive-behavioral interventions. These include a variety of treatment programs, including anxiety management programs, cognitive restructuring procedures, exposure procedures, and their combinations. A multidimensional meta-analysis concludes, that a variety of treatments, primarily exposure, other cognitive behavior therapy approaches, and eye movement desensitization and reprocessing, are highly efficacious in reducing PTSD symptoms, but that long-term effects beyond 6-12 months are unknown (Bradley, Greene, Russ, Dutra, & Westen, 2005).

7.1.4.1 Anxiety Management Programs

Anxiety management treatments (AMT) take the view that pathological anxiety stems from skills deficits (S. D. Solomon & Johnson, 2002) and that AMT provide patients with a repertoire of strategies to handle anxiety. Strategies include relaxation training, positive self-statements, breathing techniques, social skills training, and distraction techniques. Unlike exposure therapy (Foa & Kozak, 1986) and cognitive therapy (Beck, Emery, & Greenberg, 1985), which are designed to correct the mechanisms underlying pathological anxiety, AMT aim to provide ways to manage anxiety when it occurs. The traumatic experience is not the focus of this approach. One of the most commonly used anxiety management treatments for PTSD is stress inoculation training (SIT, Meichenbaum, 1975). This treatment strives to increase self-monitoring of conditioned stimuli so that coping strategies can be used to curtail anxiety responses early in the process. It is a combination of several techniques, including muscle relaxation, thought stopping, breathing control, communication skills, and guided self-dialogue, comprised of stress inoculation, and cognitive restructuring to address maladaptive thoughts.

SIT has been found to be more effective as compared to supportive counseling or a waiting-list control group, however, at follow-up it was less effective in comparison to exposure techniques (Foa, Dancu, Hembree, Jaycox, Meadows, & Street, 1999; Foa et al., 1991). Relaxation training alone was found to be less effective as compared with exposure techniques or cognitive therapy (Marks, Lovell, Noshirvani, Livanou, & Thrasher, 1998).

7.1.4.2 Cognitive Therapies

Cognitive therapy was originally developed by Beck (1979) for the treatment of depression. It is based on the theory that dysfunctional thinking patterns deriving from maladaptive beliefs or schemas are responsible for pathological emotions and psychiatric symptoms, i.e. the individual amplifies dysfunctional interpretations of the traumatic event or its consequences, which leads to a sense of serious, current threat (Ehlers & Clark, 2000). It is further argued that trauma memories are poorly elaborated and contextualized so that autobiographical memory is disturbed (Dunmore et al., 2001; Ehlers & Clark, 2000). In cognitive therapy, the patient is instructed to identify and challenge dysfunctional thinking patterns and to replace them with functional, realistic beliefs (Foa, 2000).

Cognitive therapy as based upon the cognitive model according to Ehlers and Clark (2000) has led to large reductions in PTSD symptoms, disability, depression, and anxiety, whereas the waitlist group did not improve (Ehlers, Clark, Hackmann, McManus, & Fennell, 2005).

Drawing on McCann and Pearlman's (1990) theory that trauma alter "self-schemas" such as fundamental beliefs about safety, trust, power, esteem, and intimacy, Resick and Schnicke (1992) have developed a treatment called Cognitive Processing Therapy (CPT) – originally designed for rape victims. CPT is conducted in a group format and consists of 12 weekly sessions of 90 minutes. It elicits memories of the event by having the patient describe the traumatic event in writing and then read this account, thereby including an exposure component. In addition, this procedure aims to facilitate the understanding of the connection between beliefs, thoughts, and emotions, and, thereby containing an exposure component.

Different RCTs found CPT to be more effective in comparison with a waiting list- and a relaxation-control group (Marks et al., 1998; Resick et al., 2003; Resick, Nishith, Weaver, Astin, & Feuer, 2002). A recent study found cognitive therapy to be an effective intervention for recent-onset PTSD, which was more effective as compared to the control conditions self-help booklet and repeated assessments (Ehlers *et al.*, 2003). A recent trial by Nishith and colleagues (2005) found, that CPT was more effective in reducing certain trauma-related guilt cognitions than PE. However, no difference between CPT and prolonged exposure (PE) was found for treating PTSD (Marks et al., 1998; Resick et al., 2003; Resick et al., 2002; Tarrier *et al.*, 1999a; Tarrier, Sommerfield, Pilgrim, & Humphreys, 1999b).

7.1.4.3 Exposure Oriented Treatments

Exposure treatments, all involving the common feature of having patients confront their fears, vary on the dimensions of exposure medium (imaginal vs. in vivo), exposure length (short vs. long), and arousal level during exposure (low vs. high). Systematic desensitization (SD), for example, is at the extreme of imaginal, brief, and minimally arousing exposure, and in vivo at the other extreme of each dimension. Exposure-oriented approaches are based on a two-stage learning theory that suggests that fear and avoidance are acquired when neutral stimuli (words, thoughts, images) are paired with a traumatic event so that these neutral stimuli become aversive in themselves, and thus become capable of rendering many other associated stimuli also anxiety-producing. In the second stage, avoidance responses develop as a means of decreasing the anxiety resulting from the presence of the conditioned stimuli. Accordingly, exposure interventions aim to confront the individual with the originally anxiety provoking stimuli.

7.1.4.3.1 Systematic Desensitization (SD)

This behavioral approach involves pairing graded imaginal exposure with relaxation. After patients learn relaxation techniques, they are confronted with the avoided stimuli that have been categorized previously according to increasing levels of aversiveness. In one study patients in the desensitization condition showed more improvement that was higher than for those in the other treatments examined, although the difference did not reach statistical significance (Brom et al., 1989).

7.1.4.3.2 Prolonged Exposure (PE)

Both imaginal and in vivo exposure treatments emerged from conditioning theory that invoked the concepts of classical and operant conditioning for acquisition of fear, and the concept of extinction (or habituation) for fear reduction. Foa and Kozak (1986) invoked the concept of emotional processing to explain fear reduction during exposure, thereby correcting erroneous associations (i.e. deconditioning). This process of emotional processing and correction requires the activation of the fear structure (see Lang, 1979) via introduction of feared stimuli, and the presentation of corrective information that is incompatible with the pathological elements of the fear structure.

The standardized treatment of prolonged exposure (PE) – including both imaginal and in vivo exposure – was first introduced by Foa and colleagues (1991) and requires the patient to

repeatedly relive the traumatic event through detailed reports about it and at the same time to relive the emotions associated with the event as intensively as possible. The reliving continues for 45 to 60 min and the therapist probes for more details if the client did not provide enough details about the trauma. If the client finishes the report before the end of a session he is asked to repeat it. The narrative is audiotaped and the patient's homework is to listen to it at least once a day and to try to engage emotionally in the memories while doing so. In addition, the client is asked to engage in in-vivo exposure to feared and avoided objects.

Several RCTs have demonstrated the efficacy of exposure with PE being superior to SC, relaxation training, SIT and waiting list conditions (Foa et al., 1999; Foa et al., 1991; Marks et al., 1998; Tarrier et al., 1999a). In comparison with EMDR the results differ, either showing that PE and EMDR do not differ significantly (B. O. Rothbaum, Astin, & Marsteller, 2005) or concluding that PE produced significantly larger reductions in avoidance and re-experiencing symptoms as compared to EMDR (Taylor, Thordarson, Maxfield, Fedoroff, Lovell, & Ogrodniczuk, 2003).

7.1.4.3.3 Eye Movement Desensitization and Reprocessing (EMDR)

Eye movement desensitization and reprocessing (EMDR) treatment combines exposure and cognitive reprocessing with saccadic eye movements (Shapiro, 1995). The patient is required to follow the therapist's finger with his / her eyes in a rapid rhythmic side-to-side manner for about 15 to 20 seconds, while maintaining an image of the traumatic event. The client then reports the negative self-cognitions, emotions, and physical sensations that emerged. Patients are first desensitized to the traumatic memory, and then positive thoughts are implanted during the reprocessing phase to replace earlier negative self-evaluations.

EMDR has been the focus of considerable controversy for a number of reasons, including claims by its originator about its remarkable success in only a single session (Shapiro, 1989). Role of eye movements has changed from being critical to being epiphenomenal and that the use of any alternating stimuli during exposure would be the crucial element (Shapiro, 1995).

Several RCTs have been carried out and indicate superior efficacy of EMDR to waiting-list control groups (B. O. Rothbaum et al., 2005; Van Etten & Taylor, 1998). In comparison with other interventions the results differ with EMDR being as effective as other exposure treatments (P. R. Davidson & Parker, 2001; B. O. Rothbaum et al., 2005) or less effective (Devilly & Spence, 1999; Taylor et al., 2003). Some studies found that neither eye movements nor other dual tasks increased the efficacy of exposure (P. R. Davidson & Parker, 2001;

McNally, 1999). Because of mixed results, the NICE guidelines do not strongly support treatment with EMDR (Gersons & Olff, 2005; NICE, 2005).

Since its first publication EMDR has undergone several changes, such as the incorporation of cognitive interventions and anxiety management techniques into the original manual. Thus, EMDR evolved into an eclectic approach consisting of a combination of cognitive behavioral techniques (see Shapiro & Maxfield, 2002: Adaptive Information Processing, AIP). Accordingly, the proposition of EMDR as new and unique treatment approach can no longer be sustained.

7.1.5 Combined Treatment Programs

Since several approaches have proved to be effective in the treatment of PTSD, further trials have been conducted to test, whether a combination of these interventions would enhance the efficacy.

The combination of affective and interpersonal regulation with exposure showed a significant improvement in PTSD symptoms compared to a minimal attention wait list (Cloitre, Koenen, Cohen, & Han, 2002). The RCT comparing CPT and PE by Resick and colleagues (1998) found that both treatments were highly efficacious and superior to the minimal attention condition. Marks and coworkers (2002) tested the combination of exposure and cognitive therapy with each method alone and with relaxation training as control condition. All participants in each condition received the same time of 10 sessions of treatment. The three treatment conditions showed were superior to the control conditions and showed good effects; still, contrary to the expectations, the combined treatment group did not produce a greater improvement. A recent trial examining the efficacy of PE vs. PE with cognitive restructuring (CR), also found, that the addition of cognitive restructuring did not significantly enhance treatment outcome (Foa *et al.*, 2005). Also Paunovic and Ost (2001) found, that adding CR did not improve the outcome of PE. Foa and colleagues (1999) compared SIT and PE alone to a combination of these approaches and a waiting list group. All interventions were more effective in comparison to wait list, however all three treatment groups produced similar improvement on overall PTSD severity, with PE consistently being superior to PE-SIT and SIT.

Thus, combining separately efficacious treatments does not seem to enhance outcome for PTSD. An exception is Bryant et al.'s (2003) finding, that adding CR improved outcome relative to exposure therapy. However, this study included only imaginal exposure, whereas the studies by Marks et al. (1998), Paunovic and Ost (2001) and Foa et al. (2000, 1999, 2005) in-

cluded both imaginal and in vivo exposure. Perhaps adding either in-vivo exposure or CR can augment the efficacy of imaginal exposure to trauma memories.

Two explanations are offered for the failure to augment the outcome of exposure therapy with elements of SIT or CR. First, for study purposes, programs that combine two separately efficacious treatments have been administered in the same number and duration of sessions used for the individual treatments (e.g., Foa et al., 1999; Marks et al., 1998). Thus, patients who received combination therapy did not receive as much exposure as the PR only group or as much stress inoculation as the SIT only group. Furthermore, two treatment conditions within one session might lead to an information overload (Marks et al., 1998). The combined program also requires double the amount of homework from the participants, which might reduce the likelihood that the patients found enough time to complete the tasks (Foa, 2000; Foa et al., 1999). Foa and colleagues (2005) alternatively suggest that it could be possible that all efficacious treatments modify the same dysfunctional cognitions underlying PTSD, since CR was explicitly designed to help patients modify beliefs that are thought to maintain their symptoms (see 7.1.4.2). In addition several treatment studies on anxiety disorders support the hypothesis that exposure therapy changes pathogenic cognitions (for PTSD e.g., Foa & Rauch, 2004; Hope, Heimberg, & Bruch, 1995). There is considerable overlap between exposure therapy and cognitive therapy for PTSD. Both approaches include similar elements, although programs may differ in how much emphasis they place on exposure versus cognitive therapy, how exposure and cognitive therapy are conducted, and even in what they label as exposure or cognitive therapy.

7.1.6 Narrative Exposure Therapy (NET)

Narrative exposure therapy (NET) is an intervention that was developed for the treatment of PTSD resulting from organized violence. It was developed by Neuner and colleagues (2002, 2004b) based on the principles of cognitive behavioral exposure therapy and testimony therapy. The manual has recently been published by Schauer, Neuner and Elbert (2005). The classical form of exposure therapy was adapted to meet the needs of clinically traumatized survivors of war and torture. In exposure therapy, the patient is requested to repeatedly talk about the worst traumatic event in detail while re-experiencing all emotions, bodily sensations, and implicit memory parts associated with this event, but this time in a safe and protected environment. In the process, hot implicit memories are woven into the story unfolded by cool declarative memories allowing the majority of patients to undergo habituation of the emotional re-

sponse to the traumatic memory, which consequently leads to a remission of the anxiety disorder.

However, most victims of organized violence, war, and torture have experienced several traumatic events, and it is often impossible to identify the worst event before treatment. To overcome this difficulty, NET uses the chronicity of testimony therapy as developed by Lira and Weinstein (Cienfuegos & Monelli, 1983). Instead of defining a single event as a target in therapy, the patient constructs a narration of his / her whole life from birth to the present while focusing on the detailed report of the traumatic experiences. The testimony therapy approach has repeatedly been found to be efficacious, e.g. in an uncontrolled trial with Bosnian refugees in the USA (S. M. Weine et al., 1998a), with asylum seekers and refugees in the Netherlands (van Dijk, Schoutrop, & Spinhoven, 2003), and as video testimony in long-term hospitalized psychiatrically ill Holocaust survivors in Israel (Strous *et al.*, 2005).

The focus of NET is twofold. As with exposure therapy, one goal is to reduce the symptoms of PTSD by confronting the patient with memories of the traumatic event. Yet, recent theories of PTSD and emotional processing suggest that the distortion of the explicit autobiographical memory of traumatic events leads to a fragmented or inconsistent telling of the narrative of traumatic memories (Ehlers & Clark, 2000). Thus, the reconstruction of autobiographical memory and a consistent narrative are the second goal and element to be used in conjunction with exposure therapy.

Narrative exposure therapy is a short-term approach. The prerequisite is a diagnostic session for the ascertainment of PTSD, followed by a psycho-educative introduction about the nature and prevalence of PTSD symptoms and the explanation of the treatment rationale. From the next session on, the patients constructs a detailed chronological account of his / her own biography in cooperation with the therapist. The autobiography is recorded by the therapist, read out to the patient in the following session and corrected with each subsequent reading. Special focus of the therapy is on the transformation of the generally fragmented report of traumatic experiences into a coherent narrative. During the discussion of traumatic experiences, the therapist asks for current emotional, physiological, cognitive and behavioral reactions and probes for respective observations. The participant is encouraged to relive these emotions while reporting the events. The discussion of a traumatic event is not terminated until a habituation of the emotional reactions presented and reported by the patient takes place. In the last session, the participant receives a written report of his / her biography. Depending on the patient's wishes the report can be used for documentation purposes of human rights violations.

When working with refugees, an interpreter is frequently needed. It is important to inform them beforehand concerning aims and eventual contents of the therapy and to offer supervision.

Narrative exposure therapy has been proven to be efficacious in a RCT with Sudanese refugees living in a refugee settlement in northern Uganda (Neuner et al., 2004b). In this trial, participants received two screening sessions. Those who presented with PTSD according to the CIDI were offered participation in the treatment study. Participants were randomly assigned to either one session of psycho-education or four sessions of either NET or SC. NET and SC both also included one session of psycho-education. One year after treatment, only 29% of the NET participants but 79% of the SC group and 80% of the psycho-education alone group still fulfilled PTSD criteria. Further publications on case studies, e.g. on a woman in a Macedonia's refugee camp (Neuner et al., 2002) and a pilot study with child war survivors in a refugee settlement in southern Uganda (Onyut *et al.*, 2005) support these findings, indicating, that NET is a promising approach for the treatment of refugees living in unsafe conditions in developing countries.

7.1.7 Psychotherapy for Refugees and Asylum Seekers as Survivors of Organized Violence

A review on the literature relating to the psychological treatment of PTSD in traumatized refugees shows that there is a dearth of research in this area. In addition, the majority of studies conducted have significant methodological limitations, including non-random allocation to treatment, lack of controls, non blind outcome assessments, small group sizes, and specific refugee populations (Nicholl & Thompson, 2004).

Folkes (2002) reports about thought field therapy, which lead to a significant reduction of PTSD symptom severity in a group of 31 participants with refugee or immigration background (d = 1.5). In thought field therapy, the client is asked to think about a specific troublesome issue and then to quantify their feeling on a scale of 1 to 10, with 10 representing the most intense feelings of upset. Next, the patient is asked to tap on his / her own body in specific places, or energy points, in a specific order. The study lacks methodological specificity to account for variables such as facilitator differences, trauma history, and a self-report instrument as measure for symptom change. In addition, no sociodemographic data about the sample is available, such as the immigration status, or the ethnical background. Also, the sample consisted of children and adults ranging in age from 5 to 48, thus limiting the results.

In a pilot study by Weine and colleagues (1998a), a group of 20 traumatized adult refugees from Bosnia-Herzegovina received testimony therapy with on average 6 sessions, weekly or biweekly, each about 90 minutes. All participants had resettled in the Chicago area. The results provide evidence that testimony psychotherapy may lead to improvements in PTSD and depressive symptoms, as well as to improvement of functioning. Limitations include the lack of a control condition, such as a waiting list control group, and the recruitment source (authors' outreach work). Case vignettes on asylum seekers and refugees who were offered testimony therapy for PTSD support the conclusion that this approach is an efficacious treatment (van Dijk et al., 2003).

Otto and coworkers (2003) conducted a randomized controlled trial selecting a sample of pharmacotherapy-refractory female Cambodian refugees to test the efficacy of combination treatment with sertaline (SSRI) and CBT vs. sertaline alone for treating PTSD. All patients failed to respond adequately to treatment with clonazepam (anticonvulsant) in combination with an adequate dose of an SSRI other than sertaline. CBT was defined as combination of psycho-education, exposure and cognitive restructuring. Treatment was conducted in Khmer language and in a group format of 10 sessions and was held in a local Buddhist temple. The authors found than CBT provided substantial additional benefit relative to treatment with sertaline alone. They furthermore point out that the CBT approach as conducted here especially met the patients' culture-specific needs, e.g. catastrophic interpretations of anxiety symptoms. However, because of small sample sizes (n = 10), the effect size estimates are likely to be unreliable. The influence of religious aspects such as the setting in a temple on the effect of CBT is unclear. Furthermore, it was not controlled for spontaneous remission or unspecific effects, e.g. through a control condition. In addition, it is not specified whether therapy was conducted with or without interpreter and whether the patients had a permanent resident permit in the USA. Finally, because of the culture-specific approach and the female group of participants the generalization on other refugee groups is constrained.

The same group subsequently conducted a further study with treatment-resistant Vietnamese refugees receiving a cultural adapted CBT for PTSD and panic attacks (Hinton, Pham, Tran, Safren, Otto, & Pollack, 2004). Cognitive behavioral therapy consisted of psychoeducation, relaxation, and instruction on a culturally appropriate visualization, cognitive restructuring, exposure, and an emotional processing protocol. The 12 participants were randomized into two groups receiving either immediate or delayed treatment. All patients continued current medication, e.g. SSRI, benzodiazepine, gabapentin. The results show a significant improvement on all outcome measures for PTSD symptom severity, anxiety and depressive

symptoms. In addition, the severity of culturally related headache- and orthostasis-cued panic attacks improved significantly across treatment. A limitation is that the same individual provided all treatment, therefore a therapist effect rather than a treatment effect may account for the observed improvements. In addition, the small sample size as well as the lack of a control condition stints the results. Hinton and colleagues (2005) furthermore offered CBT for PTSD and panic attacks to 40 Cambodian refugees in a RCT, again in a cross-over design with initial and delayed treatment groups. Results indicated significantly greater improvement in the initial treatment condition with large effect sizes for all outcome measures.

Paunovic and Ost (2001) conducted a RCT of psychotherapeutic treatment for PTSD for refugees in Sweden, comparing exposure treatment alone (n = 9) with CBT (n = 7), including exposure, cognitive restructuring, and controlled breathing, but no "cultural adaptions". Participants were treated individually for 16 to 20 weekly sessions. There was no waiting list control group, as this was considered unethical due to the severity of the trauma. Post treatment and at 6 months follow up significant improvements were found on both assessor and patient completed measures of PTSD symptom severity, anxiety, depression, cognitive schemas, and quality of life. No significant differences were found between treatment groups, although it is likely that the study did not have sufficient power to detect any group effects. This study provides evidence for the efficacy of both exposure and cognitive interventions for a severely traumatized group of refugees diagnosed with PTSD. However, due to strict inclusion criteria, the study focuses on a specific sub-sample of refugees in a stable situation – all had residency status and were fluent speakers of the host country language. Five participants were also excluded from the study due to high levels of distress in initial interviews. The group of refugees in this study is therefore likely to represent only a small proportion of the "typical" refugee population. Very little mention is made of culture within the article and the native countries of the refugees were not stated.

Birck (2001) reports an uncontrolled trial with 30 patients at the treatment centre for torture victims in Berlin (BZFO). The majority of participants were Kurds from Turkey; others came from the Far and Middle East or Africa. At pre-tests not all patients fulfilled the criteria for PTSD. The majority received psychodynamic therapy, others received systemic or Gestalt therapy, one received CBT. The mean treatment duration was 23.5 months with weekly sessions. The results show that at the follow-up assessment, the former patients were highly symptomatic, although intrusive symptoms had decreased. However, at follow up more than half of the subjects still suffered from PTSD. Subjects with granted asylum reported lower intrusion scores than persons with an insecure status of residence. The drop out rate came to 47%, limit-

ing the results. Yet, even though the trial does not fulfill the gold standards as described above, the author points out several practical values, such as the repeated reports of patients of a connection between their persisting anxiety symptoms and the long-term insecurity of residence and living conditions. Furthermore, the author found a symptom aggravation after recent stressors, such as the kidnapping and imprisonment of Abdullah Öcalan, the leader of the PKK in Turkey in 1999. She concludes a phasic concept of PTSD and that PTSD symptoms do not disappear, but at best go in remission. A later trial at the BZFO also found, that psychotherapy did not lead to symptom reduction (Birck, 2004). The author concludes that suboptimal psychotherapy conditions may be a reason for persistent pathology, but also the legal connection of severe illness being the precondition for the renewal of the residence permit. Permanent insecure residence may impede symptom reduction in traumatized refugees in psychotherapeutic treatment.

The RCT by Neuner and others (2004b) supports the hypothesis that even in the unstable living conditions of a refugee settlement in a developing country psychotherapy can be conducted successfully (see 7.1.6). These findings are opposed to the reasoning that refugees could not benefit from psychosocial treatment until basic needs such as food and safe living conditions are ensured. Basoglu (1996, 2004, 2005) concludes from case studies, that exposure treatment may be successful in treating torture-related PTSD, even in a political environment that poses a risk of further torture. These findings suggest that treatment of survivors of human rights violations is possible, even under circumstances of continued threat to safety, such as a preliminary residence permit.

Nicholl and Thompson (2004) conclude in their review on psychological treatments for refugees, that many studies report the use of exposure with promising results. They moreover point out that further research is needed to identify whether some refugee populations and / or some types of extreme traumas warrant special consideration in the use of exposure. Still, so far no randomized clinical trial for the treatment of PTSD has been conducted with asylum seekers in Western countries, indicating the urgent need for research in this area.

7.2 Pharmacotreatment of PTSD

Van Etten and Tyler (1998) conducted a meta-analysis on 61 treatment outcome trials for PTSD that included pharmacotherapy and psychotherapeutic interventions. In terms of symptom reduction, psychological therapies were more effective than drug therapies (d = 1.04 vs. d = 0.61), and both were more effective than controls (d = 0.17). Still, the most effective psychological therapies and drug therapies were generally equally effective. Another major finding was that psychological therapies had significant lower drop out rates than pharmacotherapies (14% vs. 32%).

7.2.1 Antidepressants

Among the drug therapies, *selective serotonin reuptake inhibitors (SSRIs)* and carbamazepine had the greatest effect sizes, although the latter was based on a single trial (Van Etten & Taylor, 1998). Another empirical review on pharmacotherapy for PTSD also found the strongest body of evidence for SSRIs (Martenyi & Soldatenkova, 2005). Long-term effects are not yet known. However, SSRIs are generally well tolerated and not associated with potential for abuse. A recent study found that compared with a placebo, fluoxetine reduces the risk of relapse in combat veterans (Cooper, Carty, & Creamer, 2005). The practice guidelines by the NICE (2005) as well as the ISTSS (Foa et al., 2000) also refer to SSRIs as the drug of choice; they moreover are the only FDA approved medication for treatment of PTSD. Still, both guidelines point out, that drug treatment should not be considered as a routine first-line treatment in preference to trauma-focused psychological therapy. A recent study compared SSRIs and MAO in the treatment of earthquake-related PTSD and found both types of medication to be efficacious, with no differences concerning efficacy between the drugs (Onder, Tural, & Aker, 2005). Serotonin-potentiating non-SSRIs, such as venlafaxine, nefazodone, trazodone and mirtazepine, have been evaluated in PTSD only in open-label and case studies; because of their promising results and relatively good safety profile, they should be considered as second-line treatment (Asnis, Kohn, Henderson, & Brown, 2004).

Further positive outcomes for *monoamine oxidase inhibitors (MAOs)* are reported by others (Cooper et al., 2005; Van Etten & Taylor, 1998). However, they can cause cardiovascular and hepatotoxic problems and require a tyramine-minimizing dietary restriction, which may limit the use in clinical practice (J. R. Davidson & Connor, 1999). Because of mixed results in their review, Albucher and Liberzon (2002) conclude MAOs to be restricted in terms of rec-

ommendation. The reversible inhibitors of monoamine oxidase A (RIMAs) also have been evaluated in patients with PTSD, but appear to be only moderately effective (Katz *et al.*, 1995).

The *tricyclic antidepressants (TCA)* may be considered for second- or third-line therapy. Clinical trials have shown moderate effects and further benefits associated with TCA, such as improvement in sleep, and once-daily dosing (Cooper et al., 2005; Friedmann, 2001). However, many of these benefits are offset by the significant incidence of adverse effects, risk for overdose, poor compliance rates, and discontinuation syndrome (J. R. Davidson & Connor, 1999). Yet, good results have been reported for those who tolerate TCAs well (Albucher & Liberzon, 2002).

Small trials of the *NaSSA (noradrenergic and specific serotonergic antidepressant)* agent mirtazapine also show efficacy in PTSD (Connor, Davidson, Weisler, & Ahearn, 1999; J. R. Davidson *et al.*, 2003). However, since it is a „new“ antidepressant, NaSSA are not yet commonly used in the treatment of PTSD.

7.2.2 Benzodiazepines / Anxiolytics

Only few controlled studies have investigated the efficacy of benzodiazepines (BDZs), with mixed results. Van Etten and Taylor (1998) found trials on BDZs showing effect sizes comparable to placebo or waiting list control group. Cooper and coworkers (2005) conclude in their review that BDZs do not specifically improve the symptoms of PTSD, although they may reduce accompanying and pervasive generalized anxiety. Well-known risks associated with BDZs such as tolerance with prolonged use, withdrawal symptoms and rebound anxiety with the shorter-acting agents, need to be taken into consideration. Ultimately, BDZs should not be used as monotherapy for PTSD but as an augmentation option, and generally, they should be used for as short a time as possible (J. R. Davidson, 2006; Hertzberg *et al.*, 1999).

7.2.3 Anticonvulsants

A small double-blind, placebo-controlled study demonstrated efficacy of the anticonvulsant lamotrigine for PTSD (Hertzberg et al., 1999). Several open-label studies have evaluated anticonvulsants in PTSD and results have been positive for carbamazepine (a benzodiazepine), valproic acid, topiramate, gabapentin, and tiagabine (e.g., Connor, Davidson, Weisler, Zhang, & Abraham, 2006); they should be considered where co-morbidity of bipolar disorder exists, and where impulsivity and anger predominate (Asnis et al., 2004).

7.2.4 Antipsychotics / Neuroleptics

Traditional antipsychotic medications are rarely considered appropriate for the treatment of PTSD unless psychotic symptoms are present (Cooper et al., 2005). Asnis and colleagues (2004) found that atypical antipsychotics were as effective as monotherapy as an augmentor to SSRIs in open-label/case-studies and small double-blind, placebo-controlled trials; atypical antipsychotics should be considered in PTSD where paranoia or flashbacks are prominent and in potentiating SSRIs in refractory cases (Ahearn, Mussey, Johnson, Krohn, & Krahn, 2006).

7.2.5 Pharmacotreatment for Survivors of Organized Violence

In the context of refugee publications, RCTs concerning the pharmacotreatment of PTSD are scarce. An older publication on the treatment of torture victims reports that benzodiazepines and TCAs would be the drugs that were most often reported useful in the treatment of PTSD (Allodi, 1991). However, the author points out that RCTs on victims of torture had not been published at that time. Otto and others (2003) found that adding CBT to pharmacotherapy (SSRI) for PTSD led to substantial gains in the treatment of Cambodian refugees with PTSD (see 7.1.7). Kinzie and Friedman (2004) review literature on pharmacotreatment for refugees suffering from PTSD. They point out concerns about generalizations based on studies on Caucasian people to refugees from Asia, for example. Dietary practices differ between cultures, which is why MAOIs should not be used for patients from Southeast Asia (e.g., in Mien patients from Laos; Kinzie, Leung, Boehnlein, & Fleck, 1987). Furthermore, substantial differences in the metabolic capacity of different groups have been recognized; yet, the clinical significance of this finding is difficult to evaluate since many factors contribute to differences in psychotropic drug response. Compliance is a further factor which needs consideration, since studies found noncompliance rates as high as 67% (Albucher & Liberzon, 2002; Asnis et al., 2004). Due to the dearth of research, it seems that also for the population of survivors of organized violence, treatment with SSRIs appears to be the first choice in pharmacotreatment.

7.3 Evidence-Based Treatments (EBT) in the Clinical Practice of PTSD Treatment

Spinazzola and colleagues (2005) reviewed the 34 adult treatment outcome trials that form the basis of the ISTSS Practice Guidelines for the Effective Treatment of PTSD (Foa et al., 2000). The authors point out that once an intervention has been found to demonstrate efficacy, the next question concerns its effectiveness, i.e. the ability of this intervention to transport well to clinical practice and achieve comparable post-intervention outcomes once experimental controls on setting, subject, and clinician characteristics are removed. The guidelines as a consequence of several empirically supported, symptom-based, manualized interventions represent, which treatments "work" for PTSD. Yet, Spinazzola and others (2005) argue that the samples might not be representative because of the restrictions. They reviewed these 34 studies concerning pretreatment attrition, exclusion criteria and sample characteristics. Concerning pretreatment attrition and exclusion the numbers range from 63% to 41% of all potential participants, that have ultimately been randomized into treatment and 53% to 39% of the full set of screened individuals complete treatment. About 21% dropped out prior to starting treatment, 35% to 16% were screened out due to the presence of exclusionary criteria. The most common criteria excluding potential participants were related to the presence of co-morbid or severe pathology, which has been described above to co-occur with high regularity in individuals with PTSD (see 5.3). The authors conclude, that even though PTSD shows rapid response to brief, manual-driven and symptom-based protocols, many trauma victims also exhibit co-morbid disorders, many of which are highly treatment resistant. Accordingly, questions remain about the applicability of these treatments in clinical practice with PTSD in addition to severe co-morbid disorders or manifestations of acute behavioral disturbance (i.e., suicidal ideation). However, a survey concerning the later issue found that the vast majority of patients in RCTs presented with co-morbid disorders and conclude that findings of RCT studies may generalize more to clinical practice than previously thought; of patients not eligible, most have less, not more, severe forms of the disorders studied (Stirman, DeRubeis, Crits-Christoph, & Rothman, 2005).

Also Bradley and colleagues (2005) point out, that future research, which is intended to generalize to patients in practice, should avoid exclusion criteria other than those a clinician would impose in practice (e.g., schizophrenia), should avoid wait-list and other relatively inert control conditions, and should follow patients through at least 2 years.

Despite research findings and the guidelines by NICE and ISTSS pointing out exposure therapy as the treatment of choice, several authors emphasize the initial and essential goal of establishing safety for survivors of trauma (Waugaman & Waugaman, 2005; J. P. Wilson & Drozdek, 2004), e.g. through patient education, social support, and anxiety management (Grinage, 2003). Summerfield (2005), for example, comments on the NICE guidelines that re-exposure to the details of the traumatic event, and the emotions evoked by it, would be highly problematic. Moreover, the professionally directed attention to the past, and to "emotion", would have become fundamentally antitherapeutic and might lead rather to a chronic course than recovery. He suggests a pro-rehabilitation approach, tackling the future, aiming through graded normalization to enable the resumption of roles and activities that formerly had signified health and competence. Already a decade ago van der Kolk (1996) points out that despite the fact that most studies with positive results for ameliorating PTSD have used a CBT framework, most clinicians treating traumatized patients continue to practice psychodynamic therapy. He emphasizes that there can be significant gaps between clinical impressions and scientific data and that until more comprehensive treatment outcome studies are available, therapists would be dependent on clinical wisdom. Despite discussions based on theoretical orientations of therapists, a controlled study on general practitioners in Scottland found, that only 28.9% of GPs had the knowledge to recognize PTSD and only 10.2% prescribed best practice for PTSD (Munro, Freeman, & Law, 2004).

In their work with refugees, Hopkins and colleagues (2005) criticize the recommended approach according to the NICE guidelines, stating that it 'indeed does belittle their suffering to construe it in pure psychopathological terms'. Both comments warn against seeing a patient merely as a 'disease'. There would only be a limited place for orthodox CBT of the type recommended in the guidelines in the work with refugees. In addition, psychotherapeutic approaches that address context and meaning as well as trauma-focused work are more likely to be effective. Regarding PTSD the 'denial' of the disorder is seen as morally necessary to 'respect' the 'survivor' of a trauma.

In addition to this critique, Grinage (2003) points out that 14% of patients with PTSD discontinue psychotherapy, but the highest dropout rates of up to 50% would occur with exposure therapy, concluding that many patients have difficulty with re-experiencing the trauma. In contrast to this, results of a review on dropout rates in exposure therapies in comparison to other active treatments indicated no difference in dropout rates between ET, CT, SIT, and EMDR (Hembree, Foa, Dorfan, Street, Kowalski, & Tu, 2003). Premature termination of treatment was instead associated with increased complexity and structure of treatment in the RCTs, such

as in combined treatments. Zayfert and colleagues (2005) state that the dropout rate from CBT for PTSD in clinical practice remains unknown, though they assume rates approximately twice those of RCTs due to treatment dropout and completer definitions, respectively, as well as comorbid disorders and treatment ambivalence. In their survey on rates of imaginal exposure therapy utilization and completion of CBT for PTSD in a medical center they furthermore found, that only avoidance and depression were unique predictors of CBT dropout. This result is consistent with reported dropout predictors from RCTs of CBT for PTSD (Bryant et al., 2003), which is why the authors conclude that a treatment approach that directly addresses avoidance, social isolation, and depression, may be associated with greater rates of treatment completion. Zayfert et al. (2005) also report that most dropouts occurred before starting imaginal exposure therapy, although initiating exposure therapy was associated with greater likelihood of completion. However, even among patients who started exposure 40% did not complete treatment. The authors state that both failure to start exposure treatment and therapists who refrain from implementing exposure therapy with patients who appear at risk for dropout, may lead to drop out.

Rosen and others (2004) conducted a survey on prevailing PTSD treatment practices for veterans. They found that treatment providers, who were not specialized for PTSD, only rarely used validated assessment measures, and less consistently screened for PTSD than for depression or substance use. These therapists would also rather provide present-focused psychotherapy practices and were significantly less likely to provide psychotherapy directly addressing traumatic events as compared to therapists with particular expertise in PTSD. Overall, exposure therapy was rarely used. In this context Becker et al. (2004) found that most community therapists do not use imaginal exposure with PTSD sufferers primarily because they lack training or do not completely accept it. A survey of about 100 therapists working with torture survivors found that a negative attitude as well as unsuccessful treatments led to the fact that one third suffers from compassion fatigue and 15% from secondary traumatization (Gurris, 2005).

Concerning the patients' acceptance of exposure, Zoellner and colleagues (2003) asked 273 women with varying degrees of trauma history and subsequent PTSD symptoms to choose between PE, the SSRI sertaline (SER) or no treatment. The women were more likely to choose PE (87.4%) than SER (6.9%) for the treatment of chronic PTSD. The perceived credibility of the treatment and personal reactions coincided with women's choices. In addition, the recog-

nized mechanism of the treatment and its side effects also influenced the choice. The authors conclude that the women seemed to have a model for the development of PTSD and of therapeutic change, which would be more consistent with psychotherapy than medication. However, if women in an outpatient treatment program were offered both PE and CT, only 18% elected to receive exposure therapy (Castillo, 2004; Castillo, Sandeen, Fallon, & Nye, 2001). Both treatments were introduced as equally effective. Yet, both treatments were offered as group treatments (at least 3 persons per group). Exposure treatment involves high levels of emotional intensity and the presence of others might enhance avoidance and thereby prevent women from choosing this approach. These results show that the patients' treatment preference does not only rely on a treatment's credibility but also on the alternatives offered as well as the setting. Yet, both studies were conducted with women in the USA, the former, recruited participants via undergraduate psychology subject pools at universities, which limits the validity of the results for other groups of patients suffering from PTSD.

Robertson and others (2004) recommend in his literature review for clinicians that although there is little data demonstrating the combined effects of medication and various psychotherapies, there is some evidence that medication may enhance the efficacy of psychotherapy. Rosen and colleagues (2004) report about the clinical practice with veterans that nearly all psychiatrists in general mental health or substance abuse programs personally prescribed medications for their PTSD patients. Generalist psychiatrists' primary choices of medications, SSRIs and anticonvulsants, were similar to those of PTSD specialists, yet, the former were somewhat more likely to prescribe these medications for re-experiencing or withdrawal / avoidance symptoms. Generalists were also less likely than PTSD specialists to use beta-blockers to treat hyperarousal. Overall, SSRIs were the medications most commonly prescribed for re-experiencing (cluster B) and for avoidance / withdrawal (cluster C) symptoms of PTSD. SSRIs and anticonvulsants were the medications most commonly prescribed for hyperarousal, irritability, or paranoia (cluster D symptoms). Most commonly trazodone (TCA) was prescribed for disturbed sleep. Benzodiazepines and beta-blockers were not widely prescribed for veterans with PTSD: only one quarter of psychiatrists prescribed these drugs occasionally.

A review concerning clinical practice patterns of psychiatrists at the Intercultural Psychiatric Program in Oregon found that of 240 refugee patients 41% received tricyclic antidepressants; 42% received an SSRI, and 17% received trazodone (Kinzie & Friedmann, 2004). The authors point out that these data represent the personal preference of the physicians rather than

any special clinical considerations. Accordingly, the use of SSRIs varied from 17% to 79% by specific physicians. Most of the patients taking SSRIs were taking another medicine, e.g., for insomnia. Almost no patients taking TCAs were on a secondary medicine.

In conclusion, clinical practice differs to some extent from the guidelines, which are based on research / treatment outcome studies. Therapists and researchers disagree with regard to treatment standards based on clinical wisdom as opposed to research outcome, even more when it comes to the psychotherapeutical and medical support of refugees and asylum seekers.

8 Health Care Utilization of Asylum Seekers in Germany

Despite the fact that a variety of approved treatment approaches exists for the different conditions encountered by asylum seekers and refugees, especially PTSD, the literature repeatedly reports about their difficulties accessing the health care system and receiving appropriate medical and psychiatric treatment (Silove, 2002). In the following chapters the literature covering this topic is reviewed. In addition, data analysis on health care and treatment utilization patterns by asylum seekers at the Psychotrauma Research and Outpatient Clinic of the University of Konstanz is provided.

8.1 Introduction

8.1.1 Legal Basis for the Utilization of Medical and Psychotherapeutic Care by Asylum Seekers in Germany

Medical and psychotherapeutic care of asylum seekers in Germany is legally regulated in the Welfare Law for asylum seekers (Asylbewerberleistungsgesetz; AsylbLG) and the social security statutes (Sozialgesetzbuch; SGB).

According to § 264 SGB V and as of January 1st 2004, asylum seekers who have lived in Germany for over 36 months, received benefits according to § 2 AsylbLG, and held at least limited residence permit or legal or humanitarian based prohibition of deportation for this time span, are entitled to receive health care through health insurance. In this case, the asylum seeker receives a chip card of the health insurance in charge with which he / she might consult the physician of choice. He / she receives the same benefits like any other insurant; this does not include travel or interpreter costs.

If an asylum seeker or refugee does not meet the prerequisites, the social welfare office covers the costs for health care (§§ 4 and 6 AsylbLG). In case of indisposition and need of intervention, the asylum seeker receives a certificate of illness from the administrator at the social welfare office or the social worker at the actual reception center. It allows access to a limited number of health care benefits. Health care through the social welfare office covers acute needs of intervention, painful illness, for the health maintenance indispensable interventions, and (unlimited) benefits in case of pregnancy and maternity, as well as preventive medical

checkups and inoculations. Benefits according to AsylbLG might cover more than health care according to SGB, e.g. travel costs to outpatient treatment, reimbursement of the personal contribution to prescription-free pharmaceuticals. According to current jurisdiction regarding the AsylbLG, the costs for an interpreter to conduct psychotherapy are also covered if no therapist with corresponding language knowledge is available (Classen, 2006). However, physicians have to cure with minimum-cost treatment. Accordingly, more often, medical treatment is granted by the social welfare office than psychotherapy (Flüchtlingsrat Berlin, Ärztekammer Berlin, & Pro Asyl, 1998; Kluwe-Schleberger, 2002).

8.1.2 Utilization of Medical and Psychotherapeutic Health Services by Asylum Seekers

In 2004, one million refugees were living in Germany and in 2005, 42,908 people from different countries applied for asylum (BAMF, 2006). As described above, many suffer from pre- as well as post-migration stressors and psychiatric symptoms besides medical problems. As introduced in chapter 7.3 treatment guidelines and the clinical practice in the treatment of traumatized persons might differ to some extent. There is information available on research guidelines, but only scarce literature exists for actual clinical practice, let alone clinical practice with traumatized asylum seekers.

However, it has repeatedly been reported, that only a small number of asylum seekers actually asks a physician or a psychotherapist for help (e.g., Schouler-Ocak, 2003). In an Afghan refugee sample in Pakistan with a PTSD prevalence of 80% only 13.7% had contacted health services due to their psychiatric illness (Naeem et al., 2005). A survey in Switzerland found low consultation rates of asylum seekers and refugees in the majority of the contacted medical practices (Blochliger *et al.*, 1998). The diversity of the asylum seekers and refugees with respect to places of origin, education, and language proficiency appeared to be the major determinants of difficulties in providing adequate health care. However, the response rate of physicians in this survey was 31%. Surveys on resettled refugees in the UK and Australia found a high level of need but a low level of service use in comparison with the host-population (McCrone *et al.*, 2005; Steel et al., 2005). Minas (2001) reports that immigrants receive more emergency aid but less outpatient psychotherapy as well as a lower quality of rehabilitation regimen than the general population.

Surveys on asylum seekers in Australia found that between 36.1% and 66.7% of the respondents had difficulties accessing medical services (Silove et al., 1997; Silove, Steel,

McGorry, & Drobny, 1999). Difficulties accessing medical and dental services consistently exceeded those reported by refugees and immigrants (Silove et al., 1999). One of the most important reasons cited was not having a Medicare card; only up to 10% asylum seekers cited language difficulties or lack of information as impediments to accessing health care (Sinnerbrink, Silove, Manicavasagar, Steel, & Field, 1996). Even though language barriers were indicated as a minor problem, Eytan et al. (2002) report in the context of Kosovar asylum seekers that the use of trained interpreters improved the quality of communication, the detection of severe symptoms and traumatic situations, and facilitated the therapeutic orientation in the context of traumatized asylum seekers.

Language difficulties have been considered as one reason, why only 5% to 15.6% of refugees and migrants, respectively, were fully compliant with all prescribed medications (Kroll *et al.*, 1990; Lee, Buchwald, & Hooton, 1993; Schmeling-Kludas, Froschlin, & Boll-Klatt, 2003).

One study evaluated knowledge of 96 South East Asian refugees about prescribed medications and compliance with taking those medications in a primary care clinic in Washington, USA (Lee et al., 1993). Medication was given due to physical as well as psychological conditions. Although 97% of the medications were either named or described correctly, the correct rationale for taking the medication was known to only 79% of the refugees and the correct dosage regimen to only 63%. Thirty-two (33%) were not taking one or more of their prescribed medications, 17 (18%) were taking one or more medications not prescribed, 5 (5%) were taking duplicate forms of the same medication that had been discontinued by the clinic provider. Seventy-five percent of the patients were taking one or more medications at an incorrect dose. These data indicate knowledge about and compliance with medications as a major problem among the examined refugees.

Brucks and Wahl (2003) report for people with migration background in Germany deficiencies in preventative measures, health education and health promotion, and overprovision of not indicated or overdosed medication. The authors further state that the access to health care might be too difficult, which fosters chronification. This is supported by Schmeling-Kludas et al. (2003), who report about 184 Turkish migrants in psychosomatic rehabilitation. The patients took an average of 3 pharmaceuticals (SD = 2.3) at admission and 2 at discharge 2.3 (SD = 1.8). General practitioners and psychiatrists conducted pretreatment in 98% and 77% of the cases, respectively. Despite the high number of outpatient treatment providers, the inpatient diagnostic procedure uncovered previously unknown somatic diseases in 16% of the patients. Minas (2001) states that misdiagnosis and lack of other more appropriate service options lead

to an increased rate of health care utilization in migrants. However, comparable findings concerning diagnosis and treatment options in the general practice have been reported for the general population. Of patients with a mental disorder and a physical illness, more than 93% consulted a physician in the previous year and on several occasions (Ohayon & Lader, 2002). MacKenzie (2005) states that because of a limited access to mental health services, general internists must treat psychiatric illnesses outside their area of expertise. The prevalence rate of psychogenic disorders in primary care in Germany is estimated between 30% and 40%, but only half of these are identified by the physician (Tress, Kruse, Heckrath, Schmitz, & Alberti, 1997). The majority of the patients with psychogenic problems in primary care named gastrointestinal problems, mainly stomach pain, and only 3.5% declared mental health as reason for consultation. Of these patients, 43.7% received medication and only 8.4% a referral to psychotherapy. Even in case the patient demonstrates psychological distress, only 31.0% receive a psycho-educative introduction and 9.5% a referral to psychotherapy. Prescription rates of psychotropic drugs in the general population in primary care increase with the prominence of psychological complaints, severity of mental disorder, severity of social disability, female gender, age older than 40 years, lower education, unemployment, and marital separation (Linden, Lecrubier, Bellantuono, Benkert, Kisely, & Simon, 1999).

In conclusion, access to health care might not necessarily be the primary problem for asylum seekers but the patient-physician-interaction concerning diagnosis, treatment options, psycho-education, prescription patterns and compliance.

The following chapter provides descriptive information on the pharmaceutical and psychotherapeutic supply, health care utilization and drug intake patterns in relation to mental health status as reported by asylum seekers at the Psychotrauma Research- and Outpatient Clinic for Refugees of the University of Konstanz. Since the Outpatient Clinic is a research institution, it is not part of the German health care system. Therefore evaluations as well as psychotherapeutic treatments are only offered as part of treatment studies. Accordingly, the asylum seekers have their individual structure of physicians and treatment providers outside the Outpatient Clinic, which is collected at evaluation.

8.2 Methods

8.2.1 Setting and Participants

Out of the pool of patients examined at the Research- and Outpatient Clinic for Refugees at the University of Konstanz between October 2001 to January 2006 the records of $N = 231$ patients were drawn to be included in this analyses. Included were only adult patients (> 18 years) and available records, i.e., records of witnesses in the International Criminal Tribunal for the Former Yugoslavia (ICTY) in den Haag were excluded. The majority of patients ($n = 137$; 59.3%) have been sent to the Outpatient Clinic for medico-legal reports. The remaining 40.7% ($n = 94$) have been interviewed in the context of treatment outcome studies. A minority ($n = 14$) were German citizens, who contacted the Outpatient Clinic asking for psychotherapeutic treatment, e.g., after surviving the tsunami in December 2004 in Thailand. The main group of interest for the data analysis consists of asylum seekers without permanent residence permit and with the diagnosis of current PTSD at evaluation. With regard to the scarce literature, the first purpose of the following data analysis was to gain information on health care utilization as well as psychotropic medication patterns.

With regard to psychiatric morbidity we predicted a negative association between symptom severity and psychotropic drug intake. We also assumed a positive association between the number of physicians consulted and the number of pharmaceuticals. A further hypothesis was, that despite the literature, asylum seekers have a high utilization rate of health care, with women using health services (physicians, psychotherapists, medication) more rigorously than men.

8.2.2 Instruments

Since the patients were part of different studies a variety of instruments have been used to gain information on sociodemographic data as well as to diagnose possible mental disorders. Co-morbidities apart from depression, for example, were not evaluated every time and consistently, so that they are not included into data analysis.

The sociodemographic questionnaires differed only to some degree between studies. The sociodemographic information available from all examinations and included in the present data analysis was as follows: age, sex, marital status, ethnicity / country of origin, and years of education, working status, time in exile, asylum status, and living situation, age at first event, age

at worst event. In addition, the number of regularly consulted physicians as well as psychotherapeutic support was collected. Concerning medication, the number of pharmaceuticals per drug type was analyzed (e.g., SSRI, TCA, MAO, BDZ/anxiolytics, analgesics with or without prescription). Psychotropic drugs were coded at evaluations if the medication has been cited as taken at least during the past 2 weeks. In terms of eventual self-medication, alcohol and substance use disorders were also considered.

Diagnosis and severity of PTSD were evaluated either using the Posttraumatic Stress Diagnostic Scale (PDS, Foa, 1995b) or the Clinician Administered PTSD Scale (CAPS, Blake et al., 1995). In the actual data analysis, the diagnosis of PTSD according to DSM-IV as well as the sum score is included.

Affective disorders were diagnosed according to DSM-IV, using the Mini International Neuropsychiatric Interview (M.I.N.I., Sheehan *et al.*, 1998) or section E from the Composite International Diagnostic Interview (CIDI, WHO, 1997). Severity of depressive symptoms was measured either using the corresponding questions of the Hopkins Symptom Checklist 25 (HSCL-25, Derogatis et al., 1974) or the Hamilton Depression Scale (HAMD, Hamilton, 1967).

8.3 Results

8.3.1 Sociodemographic Data

Sociodemographic data is presented according to country of origin in Table 8-1. For the purpose of data analysis the different types of residency or asylum status were subsumed into three groups, temporary (e.g., asylum seeker applying for asylum) vs. unlimited residence permit (e.g., approval as refugee) and citizenship (i.e., German citizen). Living situations were summarized analogously into two groups: temporary (e.g., reception center) and stable (e.g., apartment). Working status was not included since not all studies controlled for the reasons of being unemployed, e.g., no working permit, housewife, illness, lack of education etc.

Table 8-1. Sociodemographic characteristics of patients at the Psychotrauma Research and Outpatient Clinic according to country of origin

	Turkey	**Serbia**	**Bosnia**	**Algeria**	**Other African countries**	**Germany**	**Others**	**All groups**
N (%)	131 (56.7)	37 (16.0)	15 (6.5)	10 (4.3)	11 (4.8)	14 (6.1)	13 (5.6)	231 (100.0)
Age (SD)	31.7 (8.0)	37.1 (11.0)	34.3 (9.9)	35.7 (8.8)	30.6 (9.7)	33.6 (11.1)	33.7 (4.6)	33.1 (9.0)
Gender (%)								
Female	56 (42.7)	24 (64.9)	12 (80.0)	3 (30.0)	3 (27.3)	9 (64.3)	6 (46.2)	113 (48.9)
Male	75 (57.3)	13 (35.1)	3 (20.0)	7 (70.0)	8 (72.7)	5 (35.7)	7 (53.8)	118 (51.1)
Years of education (SD)	5.5 (4.0)	9.4 (3.6)	6.2 (5.5)	9.5 (5.9)	9.2 (4.8)	14.5 (3.8)	9.3 (6.0)	7.2 (5.0)
Age at first event (SD)	17.7 (7.7)	21.2 (8.2)	23.2 (10.3)	17.5 (11.1)	23.6 (6.6)	16.5 (9.9)	20.5 (9.8)	18.9 (8.5)
Age at worst event (SD)	22.6 (7.0)	28.4 (10.5)	28.2 (9.0)	31.1 (8.8)	24.2 (6.5)	24.6 (12.3)	25.8 (7.4)	24.6 (8.5)
Years in exile (SD)	4.9 (4.0)	6.8 (3.5)	5.2 (3.7)	3.8 (2.8)	3.7 (3.7)	N/A	3.6 (3.0)	5.0 (3.9)
Living situation (%)								
Reception center / temporary	93 (71.0)	13 (35.1)	9 (60.0)	5 (50.0)	10 (90.9)	-	10 (76.9)	140 (60.6)
Apartment / stable	38 (29.0)	24 (64.9)	6 (40.0)	5 (50.0)	1 (9.1)	14 (100.0)	3 (23.1)	91 (39.4)
Asylum status / citizenship (%)								
Unstable / temporary	127 (96.9)	36 (86.7)	13 (86.7)	10 (100.0)	10 (90.9)	-	12 (92.3)	208 (90.0)
Permanent residence permit	4 (3.1)	1 (2.7)	2 (13.3)	-	1 (9.1)	-	1 (7.7)	9 (3.9)
German citizen	-	-	-	-	-	14 (100.0)	-	14 (6.1)

Note. N/A = not applicable. All participants from Turkey were Kurdish; Serbia equals Serbia and Montenegro, including the province of Kosovo; Bosnia equals Bosnia and Herzegovina. "Others" includes Romania, Georgia, Armenia, India, Sri Lanka, and Iraq, Syria.

8.3.2 Psychiatric Data

Data analysis was conducted for $n = 208$ asylum seekers with temporary residence permit. Overall 86.5% ($n = 180$) asylum seekers fulfilled the criteria for PTSD according to DSM-IV. Significantly fewer women (81.8%) than men (90.8%) were suffering from PTSD ($\chi^2(1) = 3.6$; $p < .05$). Concerning Major Depression, in case of an estimated diagnosis (Verdachtsdiagnose), "no depression" was coded for data analysis in order to receive conservative prevalence rates for the present group of patients. Information on diagnoses for Major Depression was available for 83.8% ($n = 175$) of the participants, indicating 68.6% ($n = 120$) asylum seekers with Major Depression. Women and men did not differ significantly with regard to Major Depression (71.8% vs. 65.6%; $\chi^2(1) = .8$; $p > .05$).

Based on the information for $n = 175$ asylum seekers, a majority of 65.1% ($n = 114$) was diagnosed with both PTSD and Major Depression according to DSM-IV. PTSD only and Major Depression only was diagnosed in 24.0% ($n = 42$) and 3.4% ($n = 6$) of the patients, respectively. A total of 7.4% ($n = 13$) did not fulfill the criteria for either diagnosis.

Information on posttraumatic symptom severity was available for $n = 227$ participants on the CAPS and the PDS, respectively. For the purpose of data analysis the data on both scales were transformed into z-scores. The two transformed scales were merged into one. Information on both scales was available for three patients; the mean of both z-scores was entered for data analysis. Values in the new variable ("PTSD z") ranged from -2.89 to 1.83. The same procedure was used to prepare severity scores of $n = 222$ participants concerning depressive symptoms for data analysis ("Depr z"; range: -2.6 to 2.7). For $n = 11$ patients data was available on both instruments; again mean values were generated.

Table 8-2. Distribution of sum scores on the CAPS and the PDS and the corresponding z-scores.

	CAPS	**CAPS z**	**PDS**	**PDS z**	**PTSD z**
n	69	69	161	161	227
m	81.3	.0	33.4	.0	.0
SD	25.4	1.0	9.3	1.0	1.0
Min	15	-2.7	6	-2.9	-2.9
Max	121	1.7	50	1.8	1.8
Skewness	-.887	-.887	-.727	-.762	-.727
Kurtosis	.299	.299	.184	.179	.184

Table 8-3. Distribution of sum scores on the HAMD and the HSCL-25 and the corresponding z-scores.

	HAMD	HAMD z	HSCL-25	HSCL-25 z	Depr z
n	143	143	90	90	222
m	23.9	.0	2.9	.0	.0
SD	9.3	1.0	.6	1.0	1.0
Min	0	-2.5	1.4	-2.6	-2.6
Max	49	2.7	3.9	1.8	2.7
Skewness	-.270	-.270	-.572	-.572	-.420
Kurtosis	.055	.055	-.083	-.083	.064

Looking at individuals with PTSD, male and female asylum seekers did not differ significantly concerning PTSD and depressive symptom severity ($t(178) = -1.4$; $p > .05$; $t(174) = -1.7$; $p > .05$; see Table 8-4).

Table 8-4. Means and standard deviations concerning symptom severity in PTSD and depression for asylum seekers

	n = 180	**PTSD z *m* (SD)**	***n = 176***	**Depr z *m* (SD)**
Men	99	.3 (.8)	98	.1 (.9)
Women	81	.4 (.7)	78	.4 (.7)

Overall, 7 (3.3%) and 5 (2.4%) of all asylum seekers and refugees were diagnosed with drug and alcohol abuse, respectively. The further data analysis did not reveal any differences between asylum seekers with substance abuse and those without, e.g. concerning symptom severity and health care utilization. Therefore, the particular statistics are not presented in the following chapters.

8.3.3 Utilization of Medical and Psychotherapeutic Health Care and Medication by Asylum Seekers with PTSD

8.3.3.1 Psychotherapists and Physicians

The following data analysis includes information on n = 180 asylum seekers with PTSD. At the time of evaluation 74.4% patients reported receiving psychotherapy and 88.7% consulted at least one physician on a regular basis (see Table 8-5). Sixteen percent (n = 29) neither consulted a physician nor a psychotherapist.

The terms psychological and medical psychotherapist refer to psychologists and physicians with a license for psychotherapy, which is usually covered through the health care system. Other forms of therapy, such as occupational therapy, is provided by psychologists and social workers with special education, but not necessarily supported by the health care system.

Male asylum seekers were less frequently in psychotherapeutic treatment in comparison to female asylum seekers (65.9% vs. 84.2%; $\chi^2(1) = 7.2$; $p < .01$). Contrary to the hypothesis, men and women did not differ concerning the number of physicians consulted ($t(149) = .2$; $p > .05$).

Table 8-5. Pattern of psychotherapeutic and medical care for asylum seekers with PTSD – in comparison to German citizens

		Asylum seekers		**German citizens**	
Asylum seekers with PTSD		180		9	
Psychotherapist *N* (%)		164[1)]		9	
	Psychological	54	(32.9)	3	(33.3)
	Medical	59	(36.0)	4	(44.4)
	Other[2)]	9	(5.5)	-	-
➜	Sum	122	(74.4)	7	(77.7)
	None	42	(25.6)	2	(22.2)
Physician[3)] *N* (%)		151		6	
	0	17	(11.3)	-	-
	1	105	(69.5)	3	(50.0)
	2	27	(17.9)	2	(33.3)
	3	1	(.7)	1	(16.7)
	4	1	(.7)	-	-

Note. [1)] Data for n = 16 (8.9%) participants is missing. Valid percent are presented. [2)] Other Therapists: e.g., occupational therapy (Ergotherapie). 3) Physician: data for n = 29 (16.1%) asylum seekers are missing; valid percentages are presented.

8.3.3.2 Number of Pharmaceuticals per Drug Type

Thirty-one (17.8%) of the asylum seekers did not take any medication at evaluation, leaving 82.2% who took at least one pharmaceutical on a daily basis. Table 8-6 presents the amount of daily intake of pharmaceuticals per drug class. The corresponding information on the 9 German citizens with PTSD is also presented in the table for notice.

Over 50.0% of the asylum seekers with PTSD took antidepressants, with 37.7% taking one and 10.2 % taking two different antidepressants. Three (1.8%) took 3 and 1 (.6%) took four different antidepressants, from up to 2 different types of antidepressants. Forty-three percent of the male asylum seekers were taking up to 3 antidepressants on a daily basis and 59% of the female asylum seekers were taking up to four.

Table 8-6. Number and valid percent of pharmaceuticals per drug type with daily intake for asylum seekers (n =180) and German citizens (n = 9) with PTSD

No. of pharmaceuticals per drug type	**1**	**2**	**3**	**4**	**5**	**Overall *n* (%)**	**Missing data from *n* = 180 (%)**	**German citizens *n* (%)**
Antidepressivs (%)								
TCA[1)] (%)	52 (31.3)	6 (3.6)	-	-	-	58 (34.9)	14 (7.8)	2 (22.2)
SSRI[2)] (%)	17 (10.2)	3 (1.8)	-	-	-	20 (12.0)	14 (7.8)	1 (11.1)
NASSA[3)] (%)	15 (9.0)	-	-	-	-	15 (9.0)	14 (7.8)	1 (11.1)
Other[4)] (%)	8 (4.8)	-	-	-	-	8 (4.8)	13 (7.2)	-
Analgesics on prescription (%)	25 (14.5)	4 (2.3)	3 (1.7)	1 (.6)	2 (1.2)	35 (20.3)	7 (3.9)	-
Analgesics without prescription (%)	52 (30.1)	2 (1.2)	-	-	-	54 (31.3)	7 (3.9)	2 (22.2)
Anxiolytics (%)	20 (12.0)	2 (1.2)	-	-	-	22 (13.2)	13 (7.2)	1 (11.1)
Hypnotics (%)	22 (13.2)	-	-	-	-	22 (13.2)	13 (7.2)	1 (11.1)
Neuroleptics (%)	20 (12.0)	4 (2.4)	-	-	1 (.6)	25 (15.0)	14 (7.8)	2 (22.2)
Anticonvulsants (%)	3 (1.7)	1 (.6)	-	-	-	4 (2.3)	13 (7.2)	-
Stomach Medication (%)	20 (11.6)	2 (1.2)	3 (1.7)	1 (.6)	-	26 (15.1)	8 (4.4)	1 (11.1)

Note. [1)]Tricyclic Antidepressant. [2)]Selective Serotonin Reuptake Inhibitor. [3)]Noradrenerg specific serotonin antidepressant. [4)]Other: RIMA: Reversible inhibitors of Monoamino Oxydase; tetracyclic antidepressive; DSA: dual serotonerg antidepressive; SM: serotonin-modulator; SNRI: selective serotonin noradrenaline reuptake inhibitor.

Of those patients who were prescribed neuroleptics, none was diagnosed with a psychotic disorder. The majority of these patients (68%) received the diagnosis of an affective disorder besides PTSD. Concerning analgesics a crosstabulation analysis revealed that only 4% (n = 7) of the asylum seekers took both, pain medication with and without prescription. A majority of asylum seekers (52.6%; n = 91) did not consume either type of pain drugs.

Men reported significantly less drug intake in comparison with women for analgesics on prescription ($t(108) = -2.5$, $p < .01$), anxiolytics ($t(110) = -2.4$, $p < .05$), and stomach medication ($t(93) = -2.5$, $p < .05$). Thirteen percent of the male asylum seekers took up to 3 different analgesics on prescription, whereas 30% of the female asylum seekers took up to 5 pharmaceuticals of this type. Eight percent and 20% of the men and women, respectively, reported daily use of anxiolytics. Concerning stomach medication, twice as many women reported daily use of up to 4 different drugs in comparison with men, who did not take more than one of this drug type at the time of evaluation (20% vs. 10%).

Considering all groups of pharmaceuticals, the asylum seekers took up to 12 different medications on a daily basis, from up to 6 different types of drugs (m = 2.0, SD = 2.0). Excluding stomach medication, asylum seekers took up to 9 different drugs on a daily basis (m = 1.8, SD = 1.6; see Figure 8-1).

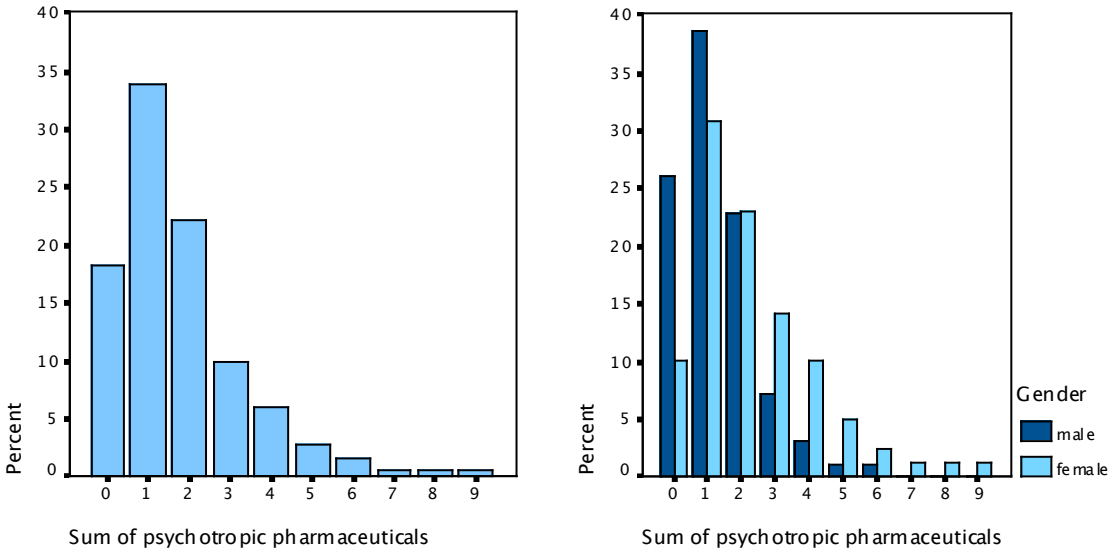

Figure 8-1. Sum of psychotropic pharmaceuticals of daily intake among asylum seekers overall and between genders,

For further analysis the sum of drugs of daily intake is calculated, including either all psychotropic drugs – excluding stomach medication – or only those available upon prescription (excluding stomach medication and analgesics without prescription). Calculating all psychotropics, male and female asylum seekers differed significantly concerning the amount of drugs of daily intake ($t(125) = -4.2$, $p = .000$). Number of drugs of daily intake ranged from 0 to 6 for men ($m = 1.3$, $SD = 1.2$) and from 0 to 9 for women ($m = 2.3$, $SD = 1.9$). Twenty-seven percent ($n = 26$) of the men did not use any drugs on a daily basis in comparison with 9.9% ($n = 8$) of the women.

Since stomach medication is often taken against side effects of other pharmaceuticals, a post hoc analysis was conducted and revealed a significant correlation of number of psychotropic drugs and stomach medication ($r = .446$; $p < .000$).

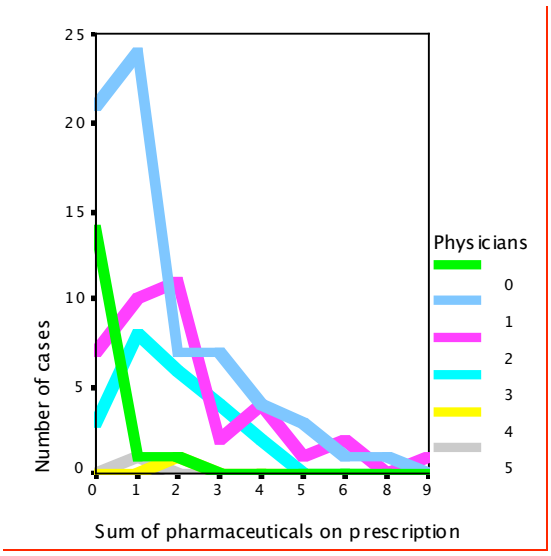

Figure 8-2. Number of physicians in relation to psychotropic drugs on prescription.

Figure 8-2 presents the number of physicians in combination with the number of pharmaceuticals on prescription. The term "physicians" in this figure subsumes professionals with the competence to prescribe medication, i.e., regular physicians and medical psychotherapists. The asylum seekers took up to 9 different pharmaceuticals on prescription, men up to 5 and women up to 9. We found a poor positive association between numbers of different prescribed drugs with daily intake and number of regularly consulted physicians ($r = .211$; $p < .01$). An univariate ANOVA displayed a significant main effect for physicians ($F(3, 167) = 4.44$, $p < .01$). Post hoc tests using Bonferroni correction indicate that patients without a physician name significantly fewer drugs of daily intake than patients with one or more physicians.

Of those without any physician or psychiatrist, 8 (50%) reported to take at least one pharmaceutical on a daily basis (43.8% =1 drug; 6.3% = 3 drugs). Seven (43.8%) of these took pain medication without prescription. The one patient with three different drugs took a TCA, pain medication without prescription and an anxiolytic. One patient, who did not name a physician reported taking hypnotic medication.

Number of psychotropic pharmaceuticals and symptom severity

Both scales on symptom severity, PTSD and depression, correlate significantly with the number of drugs of daily intake (r_{PTSD} = .150, $p < .05$; $r_{Depression}$ = .243, $p < .001$; see Figure 8-3). However, the correlation coefficient value is low, indicating a poor linear relationship between symptom severity and number of drugs. Significance indicates the reliability of the correlation coefficient. The results do not differ when outliers concerning number of drugs are excluded.

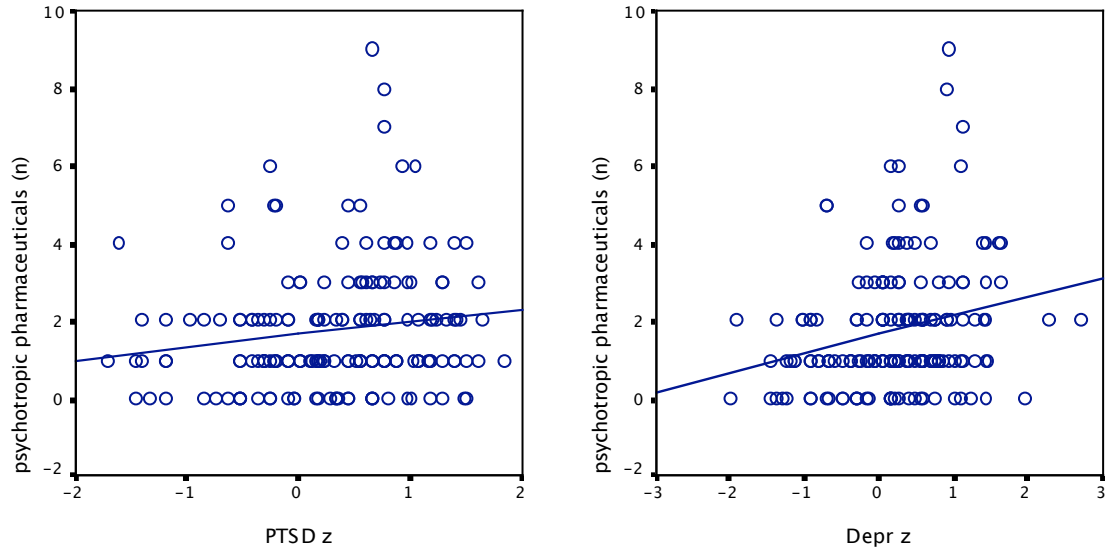

Figure 8-3. Correlation of number of psychotropic pharmaceuticals with PTSD and depressive symptom severity.

Controlling for gender, only depressive symptom severity of men correlated significantly with number of pharmaceuticals, yet indicating a weak correlation. Correlations for PTSD in men and for women on both scales did not reach significance (PTSD: r_{men} = .110, $p > .05$; r_{women} = .138, $p > .05$; Depression: r_{men} = .302, $p < .001$, r_{women} = .145, $p > .05$). Overall, the values indicate a poor relationship of symptom severity and number of medications, if at all.

8.3.4 Comparison of Traumatized Asylum Seekers with German PTSD Patients

Taking the small sample of German patients with PTSD into consideration the following results are of limited explanatory power. Yet, the data on German patients is presented to allow insight into possible differences in health care in comparison with asylum seekers. With regard to psychiatric data, only 36.4% of $n = 11$ German citizens fulfilled the criteria for both diagnoses PTSD and Major Depression. An equal amount was diagnosed with PTSD only and 27.3% did not receive any diagnosis. Comparing asylum seekers and German citizens, the two groups differ concerning symptom severity for PTSD ($t(225) = 2.9$; $p < .00$) and for depression ($t(220) = 5.5$; $p < .00$), with the group of Germans presenting a lower level of symptoms.

German patients reported a comparable utilization pattern with regard to psychotherapeutic treatment. Unlike asylum seekers, all Germans reported consulting at least one physician on a regular basis. The German citizens had a significantly lower number of pharmaceuticals of daily intake in comparison with asylum seekers ($t(220) = 1.9$; $p < .05$). All German citizens reported to take only one pharmaceutical per drug type, if at all. In addition, 20.3% of asylum seekers reported one to five different analgetic medications on prescription, whereas none of the German citizens reports taking medication of this type. Three of nine Germans (33%) took three different drugs, one (11%) reported two drugs of daily intake and one (11%) took one pharmaceutical. Four German patients (44%) reported no drug intake at all.

8.4 Discussion

8.4.1 Health Care Utilization and Pharmacotreatment Patterns

Psychiatric Data

The descriptive data analysis revealed that 86.5% of the asylum seekers were diagnosed with PTSD, with significantly more men than women being indicated with this diagnosis. The overall prevalence rate of PTSD is comparable with rates in other outpatient clinics for asylum seekers and refugees ranging from 69%-92% (Leth & Banner, 2005; Moisander & Edston, 2003). The higher PTSD prevalence rate in men might be due to the type of traumatic experiences in the sample, e.g., in 2002 a majority of 77.3% reported to have survived torture (PROCR, 2003). The dose-effect as introduced in chapter 5.4.3 could turn around the usually higher prevalence rate in women in the general population - because of more frequent rape ex-

periences in the latter. The high number of traumatic events in the present sample of asylum seekers seems to change this pattern. Sixty-five percent of the cases with PTSD suffered from co-morbid Major Depression, which is comparable to prevalence rates in other surveys on asylum seekers (e.g., 68.1% in Gerritsen et al., 2005). Male and female asylum seekers did not differ concerning symptom severity of PTSD or depression. The prevalence rate of PTSD in the German patients is higher than rates reported for community samples (see chapter 5.2.1). However, the Germans seeking help at the Outpatient Clinic asked for treatment because of their severely disturbing experiences and their knowledge concerning the expertise of clinicians in the Outpatient Clinic in the treatment of these conditions. Therefore the present sample of German patients is rather specific and not representative for the community.

General physician & psychotherapist

The asylum seekers at the Research and Outpatient Clinic for Refugees reported high consultation rates for physicians as well as psychotherapists, with 74.4% of the patients receiving psychotherapy and 88.7% consulting at least one physician on a regular basis. Only 16% (n = 29) neither consulted a physician nor a psychotherapist. These data do not support several statements and findings of low consultation rates or health care utilization of asylum seekers and refugees in the general practice (Blochliger et al., 1998; Minas, 2001; Naeem et al., 2005; Schouler-Ocak, 2003). They seem to have a comparable proportion of responsible general practitioners as persons with psychiatric disorders in the European general population (74% to 98%, see Ohayon & Lader, 2002) and more than cases in the US population (53.8%; Wang, Berglund, & Kessler, 2000a). With regard to the German sample, the use of psychotherapy is comparable with that in asylum seekers. The finding, that unlike the asylum seekers, all Germans named at least one physician does not imply a reason for concern per se, since the studies mentioned above show that usually not 100% of a population has a responsible general practitioner.

However, the data at hand do not give information about the quality of the physician-patient-relationship as well as of the treatment itself. The high prevalence rates of PTSD and Major Depression might indicate, that either certain health conditions are not identified or in case of identification are treated insufficiently with regard to therapeutic approach as well as psychotropic medication (Schmeling-Kludas et al., 2003; Tress et al., 1997). For example, neither trauma nor any psychopathology has been identified in over 200 participants in a primary care setting in South Africa (Carey, Stein, Zungu-Dirwayi, & Seedat, 2003). The survey revealed exposure to traumatic events in 94% of the cases as well as 19.9% PTSD and 37% de-

pression, among other psychiatric diseases. Concerning psychotherapy as part of the treatment, Rodriguez and colleagues (2003) found that only 8% of patients with PTSD in primary care received psychotherapy alone and 26% of the cases received a combination of medication and psychotherapy. Unfortunately, no information exists concerning the diagnoses the asylum seekers received from their general physicians in the present study, as well as no detailed information on the psychotherapeutic treatment of the sample at hand and can therefore not be discussed in detail. However, in chapter 10 the psychotherapeutic practice with regard to a different sample of asylum seekers with PTSD is introduced and discussed. The following discussion will therefore stress different aspects of pharmacotreatment.

General Psychotropic Medication

Overall, 82.2% of the asylum seekers with PTSD and temporary residence permit took at least one pharmaceutical on a daily basis. The literature provides no information concerning pharmaco-epidemiologic data in asylum seekers. Bayard-Burfield and others (2001) report the first Swedish national survey of immigrants and found intake rates of psychotropic drugs between 7.6% and 12.4%. Kurdish immigrants presented the lowest rate of psychotropic drug intake, Chilean and Iranian immigrants the highest rates. Psychotropic medication was defined as intake of hypnotics, antidepressants or tranquilizers during the last two weeks. The risk of drug intake was increased in comparison with Swedish-born people. However, no information on psychiatric diseases was available.

Studies on psychotropic drug utilization in patients with PTSD in general populations found rates between 13.5% and 46.2% (Alonso *et al.*, 2004; Ohayon & Lader, 2002; Rodriguez et al., 2003). All studies included antidepressants, anxiolytics, antipsychotics, and hypnotics. Thus, another survey on the use of psychotropic medication in subjects with psychiatric disorders in general populations in Europe found that only 13.5% of cases with PTSD and 30% of cases with PTSD and depression received at least one psychotropic medication (Ohayon & Lader, 2002). Psychotropic medications included were hypnotics, anxioloytics, antidepressants, and neuroleptics. Including only these drug types as well as cases with PTSD and depression of the sample at hand, still twice as many asylum seekers (65.5%) reported receiving psychotropic medication in comparison with the cases in the survey by Ohayon and Lader (2002). Asylum seekers with PTSD only received any psychotropic medication as defined by Ohayon and Lader in 54.5% of cases, indicating a fourfold higher portion of pharmacotreatment in asylum seekers in comparison with the PTSD cases in the later study.

An international collaborative study coordinated by the WHO included prescription patterns of psychoactive drugs, such as hypnotics, antipsychotics, antidepressants, analgesics, tonic/vitamins, herbal drugs, anxiolytics, and other drugs (Linden et al., 1999). Among patients who received the diagnosis of a psychiatric disorder by the treating general practitioners, 51.7% were given medication, with a range across sites from 31.9% in Groningen to 73.8% in Paris. There were no large differences found between major depression (60.1%), mixed anxiety-depression (56.2%), anxiety disorders (51.3%), and disorders with unexplained somatic symptoms (58.9%). Including the corresponding pharmaceuticals into a descriptive data analysis of the present study, 78.6% and 83.3% of asylum seekers with PTSD only and PTSD and Major Depression, respectively, were reporting use of psychoactive drugs (all asylum seekers with PTSD: 80.6%). Again, asylum seekers with PTSD seem to receive more medication than people with a psychiatric disorder in the general population, also than the German sample in the Outpatient Clinic, of which 66% reported regular use of psychotropic medication. Prescription rates in the study by Linden and associates (1999) differed depending on the center structure, with patients either having an identified personal physician (client-type) or not (clinic-type). The authors report a tendency for more tranquilizer prescriptions (anxiolytics, hypnotics) in clinic-type institutions, and higher prescription rates for antidepressants and miscellaneous drugs and also for psychotropic polypharmacy in client-type institutions. The present study found a comparable pattern to the effect that high medication rates were not necessarily associated with a higher number of different physicians. Patients with the highest number of pharmaceuticals don't visit more physicians in comparison with those who report less drugs of daily intake, as Figure 8-2 illustrates. Drug intake is only related to consulting one or more physician at all as opposed to no physician. The asylum seekers in the present study visited different physicians in separate practices, whereas the different physicians in the study by Linden and colleagues (1999) worked at one center. The later found several factors other than the general practitioner himself, which increased prescription rates, such as severe psychological complaints, severity of social disability, lower education, and unemployment. Individuals with PTSD, alone and in combination with depression, more frequently use health care services (Deykin *et al.*, 2001). Regular consultations may result in higher prescription rates (Alonso et al., 2004). Since several of these factors are present in many asylum seekers at the Research and Outpatient Clinic, they might explain, why this population consistently seems to be prescribed more medication than others.

Symptom severity and number of pharmaceuticals

Low compliance rates in the sample of the present study might explain why symptom severity for PTSD as well as depression and number of pharmaceuticals were only poorly associated, if at all (r = .15 and r = .24). The asylum seekers seem to use psychotropic medication independently from symptom severity according to psychometric instruments. Mediating factors concerning intake patterns could be the perceived amount of stress due to the application procedure, the living situation in the reception centers or other factors, which have not been covered by the diagnostic instruments at evaluation. Afghan refugees, for example, reported more pressing priorities than their own health and that their own symptoms were not extraordinary within their community (Malekzai et al., 1996). Accordingly, they were reluctant to tell health care providers of symptoms other than physical complaints. With regard to the present population, the content of the consultations could have lead to psychotropic prescriptions, which do not mainly focus on PTSD.

The tendency towards a positive association of number of drugs and symptom severity also indicates that drug intake does not result in lower symptom severity – assuming intake patterns as prescribed, but that patients with higher symptom severity tend to report more medications of daily intake. The intake of several different medications might cause side effects as well as interactive effects, which in turn can impair the (mental) health of a patient rather than cause symptomatic relief. Further medication for the treatment of side effects is needed. The later is supported by the positive correlation of number of psychotropic drugs with stomach medication in the present study (r = .446). Even though the asylum seekers reported taking up to 9 different psychotropic drugs on a daily basis, the average took 2 pharmaceuticals. Lee and colleagues (1993) also report polypharmaceutic treatment and drug intake, respectively, among refugees and Schmeling-Kludas (2003) found an average intake of 3 pharmaceuticals in Turkish migrants. Unfortunately, side effects and interactive effects of medications were not collected in the present sample, since they can account for up to 44% of treatment dropout in the treatment of mental disorders (Wang *et al.*, 2000b).

Treatment regimen and compliance in the literature

Diagnostic procedures and prescription patterns by physicians are one aspect of the treatment. Still, it has been found, that even when there is an adequate recognition of the mental disorder by the primary care physician, this is not associated with an improvement in the pathology at follow up 3 months (Tiemens, Ormel, & Simon, 1996) or 1 year later (Pini, Perkonnig, Tansella, Wittchen, & Psich, 1999). Two factors could account for that situation. First,

only 14% to 45% of the patients with a mental disorder in the general population are offered a treatment that could be beneficial or is in the appropriate treatment range (Andrews, Sanderson, Slade, & Issakidis, 2000; Egberts, Leufkens, Hofman, & Hoes, 1997; Wang et al., 2000a). Predictors of receiving guideline-concordant care in the USA included being white, female, severely ill, and having medical health insurance coverage (Wang et al., 2000a). The most common reason patients with PTSD in a primary care setting in New England, USA, gave for not receiving medication or psychosocial treatment was the failure of physicians to recommend such treatment (Rodriguez et al., 2003). The presence of co-morbid Major Depression Disorder doubled the likelihood of receiving any treatment. Accordingly, general physicians need more thorough training on indication and treatment of mental diseases, especially PTSD. Second, the patient may not comply with the medical treatment. Low compliance rates have repeatedly been reported, independently of one physician or changing general practitioners (Lee et al., 1993; Schmeling-Kludas et al., 2003). Patients take more or less medication as prescribed, different and additional medications or continue medication that has been discontinued by the physician (Lee et al., 1993). For example, Kroll et al. (1990) found therapeutic levels of antidepressant medication in only 5 of 32 refugees who reported to have taken antidepressant medication according to prescription. The authors report different reasons, why the patients did not follow the regimen, such as: side effects, blaming the antidepressant medication for depressive and anxiety symptoms, failure to understand the purpose of treatment, worry that all medications are addictive. Refugees as well as asylum seekers often expect rapid symptomatic relief and have no concept of long-term medication. An older study by Greene and colleagues (1982) found an association between poor compliance and patients' inability to state their medication's name, description or function. Wang and colleagues (2000b) reason based on a survey across 11 countries, that successful initiation and adherence to mental health treatments depend critically on patients' knowledge and awareness, clinicians' communication skills, treatment side effects, and barriers such as lack of insurance.

To enhance compliant behavior more effective communication and psycho-education is of evident need. In this context, the physician-patient-relationship is important. Blochliger and others (1998) found that 71% of the general practitioners in their survey reported a satisfying physician-patient-relationship with asylum seekers in their practices. Yet, 44% practitioners found no need for interpreters during consultation, and over 50% wondered whether they would meet the asylum seekers needs. Despite a good physician-patient-relationship an impaired communication because of language difficulties might inhibit the quality of consultations. As Eytan and coworkers (2002) found, the use of trained interpreters can improve the

quality of communication, the detection of symptoms and facilitate the therapeutic orientation of asylum seekers, e.g. medication and / or referral to psychological and psychotherapeutic care. Malekzei and colleagues (1996) found a PTSD prevalence of 50% in Afghan refugees in the USA after translating the CAPS into 2 Afghan languages. None of the participants showing evidence of PTSD had been previously diagnosed and none was receiving mental health services. Unfortunately, no standardized information was available in the present study on whether any interpreter was present at consultations, whether the practitioner routinely screened for PTSD or other mental diseases and to which extent these aspects influenced the treatment regimen.

8.4.2 Pharmacotreatment According to Type of Drug

The majority of reported drugs in the sample were antidepressants. The rate of 50% is comparable to 47% in Turkish migrants in psychosomatic rehabilitation (Schmeling-Kludas et al., 2003). However, the samples differ in immigration status as well as with respect to diagnostic indications. On the other hand, patients with PTSD or PTSD and Major depression in the general population of Germany, France, Italy and the United Kingdom receive antidepressants in 8.3% and 17.9% of the cases, respectively (Ohayon & Lader, 2002). The higher rates of antidepressants can be explained by a higher morbidity in the asylum seekers.

Even though the asylum seekers received medication more often, in both samples tricyclics (TCA) represented the most frequently prescribed antidepressant (61.9% in asylum seekers; 54.7% in cases in European countries). Selective serotonin reuptake inhibitors (SSRI) were prescribed in 20.2% and 30.6% of the cases. About 17.9% of the antidepressant medications for asylum seekers were NASSA. Other antidepressive medication was prescribed in 10% of the asylum seekers and 14.8% of the European cases. A psychiatric program for refugee patients in Oregon found that 41% of patients received TCAs and 42% SSRIs, with the later ranging between 17% to 79% depending on the physician (Kinzie & Friedmann, 2004). Apparently, the clinical practice of pharmacotherapy for asylum seekers and refugees suffering from PTSD differs from treatment guidelines (see 7.2). The latter propose SSRIs as drug of choice and TCAs only as second- or thirdline treatment. Tricyclics are prescribed regularly for improvement of sleep besides antidepressant effects, but are also known for adverse effects and therefore poor compliance rates (Cooper et al., 2005; J. R. Davidson & Connor, 1999). SSRIs have a longer half-time and missing a dose is not as crucial as with other medications; still, side effects may cause sexual dysfunction and they only have a modest effect on sleep and nightmares

(Kinzie & Friedmann, 2004). However, TCAs are less expensive in comparison with SSRIs. In addition, patients with PTSD on SSRIs often receive additional medication to control for sleep disturbances and nightmares (Kinzie & Friedmann, 2004). Besides the apprehension of additional compliance problems for the later medication pattern, it is more cost intensive than treatment with TCAs. Physicians in Germany are held to cure asylum seekers with minimum-cost treatment (Flüchtlingsrat Berlin et al., 1998; Kluwe-Schleberger, 2002), which in turn may result in more treatment with TCAs than SSRIs.

Over 47% of the asylum seekers reported taking at least one analgesic on a daily basis. Only 20.3% took analgesics upon prescription, but 31.3% took analgesics, which are available without prescription. Only 4% of the participants were assigned to take analgesics with and without prescription at evaluation. Schmeling-Kludas and others (2003) report, that about 35% of the Turkish migrants were pretreated with analgesics. Comparable numbers are reported for migrants in Sweden (Hjern, 2001). In the later study significantly more migrants were taking analgesics with or without prescription than Swedish citizens; a pattern similar to the present results. This circumstance can be explained by a higher morbidity in the ethnic minorities. For example, Schmeling-Kludas et al. (2003) found a higher prevalence of somatoform pain disorders in the migrants in comparison with a comparable sample of German patients from the Berus-Study (26% vs. 3%; Broda, Bürger, Dinger-Broda, & Massing, 1996). Somatization is common in patients suffering from PTSD (Escalona, Achilles, Waitzkin, & Yager, 2004). Jamil et al. (2005) found, that Iraqi immigrants in the USA report a high number of medical complaints when seeking mental health services. Brucks (2004) reports that migrants tend to perceive and report impairments and diseases with a focus on pain sensations. Consequently, treatment is often exclusively focused on interventions with analgesics. Ferber et al. (2003) report that especially Turkish migrants are often treated with a focus on symptoms in the general practice, with an agreement between patient and general practitioner to only reduce pain symptoms. However, this practice reflects a misunderstanding with regard to treatment outcome expectations as well as treatment options. According to Brucks (2004) the general practitioner assumes that the patient only wishes pain symptom reduction, whereas the patient assumes the practitioner can only work on a symptom level; both again assume the other person does not agree to a conversation concerning the psychosocial background. The medicalization of social problem areas results in a chronification of somatization symptoms since the psychological impairment continues because of incorrect treatment. – The latter is true not only in the context of prescription patterns for analgesics. – Interestingly, none of the German citizens in

our sample reported taking analgesics on prescription. Despite the small sample size this might indicate a more appropriate patient-physician-interaction with regard to the actual impairments and therefore treatment regimen.

Daily intake of anxiolytics / benzodiazepines has been reported by 13.2% of the asylum seekers. Patients in Europe received anxiolytical medication in 4.7% and 7.6% of the cases with PTSD and PTSD with depression, respectively (Ohayon & Lader, 2002). Within Europe traumatized asylum seekers seem to receive anxiolytics more often than PTSD cases in the general population. However, higher prescription rates have been found in the USA, with 14% of patients with PTSD receiving this medication in primary care.

Looking at hypnotic medication, again asylum seekers received this drug more often in comparison with cases of PTSD or PTSD and depression in the European general population (13.2% vs. 1.2% or 4.1%). Hjern (2001) found a twofold higher use of hypnotics and sedatives in migrants in Sweden in comparison with Swedish-born people, even after adjusting data analysis for psychiatric and physical health. Besides communication barriers due to language and cultural background, he suggests that patients ask for this medication, since it might be more commonly prescribed in their country of origin. Moreover, immigrants are more often treated in primary care than in psychiatric care for psychiatric illnesses, with the former prescribing hypnotic medication more often than psychiatrists (Diderichsen, Varde, & Whitehead, 1997; Jarbrink, Carlsten, & Frederiksen, 1999; Rodriguez et al., 2003). However, Hjern (2001) concludes, that despite several hypotheses his study indicates a differential treatment of psychiatric disorders of ethnic minorities in Swedish health services. The same may be true for the present sample in Germany.

Neuroleptics are rarely considered in cases with PTSD, but recommended in cases where paranoia and flashbacks are predominant. Overall, 15% of the asylum seekers in the present sample reported receiving antipsychotics, whereas only 1.5% of cases with PTSD and none of cases with PTSD and depression in the European general population were prescribed antipsychotics (Ohayon & Lader, 2002). Interestingly, none of the patients with neuroleptics received the diagnosis of schizophrenia. Still, asylum seekers may present a higher overall symptom severity as a consequence of prolonged exposure to torture and persecution, including a higher rate of flashbacks, which again can result in a higher prescription rate of antipsychotics in comparison with the European general population. With regard to Turkish migrants in psychosomatic rehabilitation, 25% have been prescribed neuroleptics in pretreatment (Schmeling-

Kludas et al., 2003). Yet, only 1% was diagnosed with a psychotic disorder, about 6% with anxiety disorders and 8.7% with reactions to severe stress and adjustment disorders at remission, for which treatment with neuroleptics can be appropriate. Still the high prescription rate in pretreatment might also indicate misdiagnoses as well as incorrect treatment.

The prescription rate of 2.3% anticonvulsants does not indicate any unusual pattern. They are regularly prescribed in cases where hyperarousal, especially impulsivity and irritability are predominant (Cooper et al., 2005; Rosen et al., 2004).

8.4.3 Gender Differences in Health Care Utilization and Pharmacotreatment

Contrary to the hypothesis, there was no gender difference concerning consulted physicians. Still a gender difference was found for the consultation of psychotherapists, with women receiving psychotherapy more often than men. The later pattern has repeatedly been reported (Lin, Goering, Offord, Campbell, & Boyle, 1996; Vessey & Howard, 1993). In addition, more women reported taking pharmaceuticals than men (90.1% vs. 73.0%) and women took more pharmaceuticals on a daily basis than men (9 vs. 6). This finding is consistent with the literature on the subject (Alonso et al., 2004). Possible explanations are, e.g., that a higher use reflects a higher morbidity in women. However, more men than women were diagnosed with PTSD in the present sample. In addition, in some studies higher use in females has been shown to be independent of psychiatric morbidity (Gavrilovic, Schutzwohl, Fazel, & Priebe, 2005; Hohmann, 1989; Weyerer & Dilling, 1991). Another explanation could be that socio-cultural differences between women and men may account for the different use patterns. In many cultures women more commonly complain of psychological symptoms and more frequently seek professional help (Alonso et al., 2004). Because of this phenomenon, women may be more likely to be prescribed psychotropic drugs. The finding, that female asylum seekers took more analgesics as well as anxiolytical medication may also be due to more complaints regarding stressful pain and anxiety sensations.

8.4.4 Conclusion

Asylum seekers with PTSD and insecure asylum status revealed a high health care utilization pattern. The majority (89.0%) consults at least one general practitioner on a regular basis. Over 80.0% of this sample report using up to 9 different psychotropic drugs on a daily basis and over 70.0% name a psychotherapist. Despite the apparently high health services utilization rate, the asylum seekers display a very high rate of psychological impairment.

Yet, a certain amount of fluctuation concerning consulted physicians as well as drugs of daily intake needs to be taken into consideration when evaluating health services and treatment pattern in traumatized asylum seekers. These factors may limit the effectiveness of treatment approaches. Still, it remains unclear whether several medications with daily intake at a time is an appropriate treatment or rather leads to chronification due to compliance difficulties on the patients' side. Also misdiagnoses, incorrect treatment, and lack of psycho-education or collection of previous prescriptions on the physicians' side seem to be prevalent. In addition, financial restrictions may influence the quality of treatment.

Since patients often did forget to bring the packages of pharmaceuticals to the diagnostic interview at the Outpatient Clinic, data was often collected based on their recall. Accordingly, the data rather represents an underestimation of the actual drug use. Moreover, the literature so far only presents information concerning quality of health services on refugees, who are resettled. This population displays a lower psychiatric morbidity than asylum seekers (e.g., Gerritsen et al., 2005). Accordingly, health care utilization and treatment needs for the latter population may generally be misjudged as well. Misreports at evaluation at the Outpatient Clinic need also to be taken into account, and could limit the explanatory power of the data. Another limiting factor may be, that data were collected on asylum seekers who were evaluated for different reasons other than the evaluation at hand. Accordingly several aspects of informative value concerning health service utilization, treatment quality, as well as contextual conditions has not been collected (see above). Moreover, the sample of asylum seekers at the Research and Outpatient Clinic for Traumatized Asylum Seekers is not representative for asylum seekers in general, but allows conclusions for the population of asylum seekers who suffer from PTSD.

With regard to the general practitioners, more educational efforts are needed to recognize and treat mental disorders, especially PTSD and co-occurring depression. For the asylum seekers as a specific group of patients, more thorough psycho-education especially concerning the mode of functioning of psychoactive drugs is needed, thereby considering culture-specific understandings of medication. It is evident, that the diagnostic procedure and the subsequent pharmaceutical treatment needs to be conducted more carefully to provide conditions, in which the treatment of psychiatric disorders in asylum seekers can be as effective as possible. Effective treatments in turn will lower the costs of health care provision. More research on health care utilization by traumatized asylum seekers is needed to ensure appropriate treatment.

9 Evaluation of Narrative Exposure Therapy in Traumatized Asylum Seekers

9.1 Introduction

The treatment study took place at the Psychotrauma Research- and Outpatient Clinic for Refugees of the University of Konstanz. Activities of the Outpatient Clinic refer to clinical diagnostics, neuropsychological explorations, and psychotherapy, offered particularly for survivors of state-sponsored violence. We compared the efficacy of Narrative Exposure Therapy and treatment as usual in a randomized controlled trial. One group received treatment as usual (TU) and served as control for unspecific treatment effects. TU was defined as any kind of psychotherapy or drug treatment that the participants received outside the Outpatient Clinic. We neither controlled for type of treatment, number or length of sessions nor for the participants' compliance. The second group was offered Narrative Exposure Therapy (NET). Standard clinical instruments were applied for the examination of treatment effects six months after the first diagnostic interview and after treatment, respectively. Instruments of posttraumatic stress were the main outcome measures. In addition, we applied measures of co-morbid anxiety and depression as well as psychosomatic pain and conversion symptoms. The main outcome was expected for the PTSD symptom severity. Other outcome variables were depression, suicidal tendency and other explorative outcome measures. We predicted a significant higher impact of the NET-condition on the development of the psychological status of the subjects after treatment compared to TU outside the Outpatient Clinic at 6-month follow-up as well as at 2-years follow-up.

9.2 Methods

9.2.1 Setting

This study was initiated after a first successful evaluation of NET in an African refugee settlement (Neuner et al., 2004b) and after the foundation of the Psychotrauma Research and Outpatient Clinic for Refugees as a cooperation of University of Konstanz and vivo (NGO) in 2003. NET has proven to be an effective treatment approach for PTSD, even for refugees suf-

fering from poor nutrition and poverty (Neuner et al., 2004b). In 2003 we found a prevalence rate of PTSD of 86% among refugees coming to the Outpatient Clinic for diagnostic reports as well as for treatment (PROCR, 2003). At that point in time there was no epidemiological data available for the mental health status of asylum seekers in Germany and there was no science-based information about proper treatment. Most asylum seekers coming to the Outpatient Clinic had experienced several traumatic experiences, were living under enduring unstable conditions and suffering from various psychiatric symptoms.

9.2.2 Participants

Altogether 71 asylum seekers received psychodiagnostic and neurophysiologic examinations over a period of two years (November 2001 – October 2003). Patients were referred to the Psychotrauma Research- and Outpatient Clinic for Refugees by their general practitioners, aid organizations, lawyers, and judges for psychodiagnostic reports. Some asked for psychotherapy themselves.

Out of these 71 asylum seekers 56 (78.9%) reported torture experiences and 60 (84.5%) fulfilled the criteria for PTSD according to DSM-IV. Every patient who fulfilled the criteria for PTSD was offered participation in the treatment study and Narrative Exposure Therapy, respectively. Exclusion criteria were mental retardation, psychosis, and neurological diseases and lesions. Participants also needed to live close enough to the clinic for weekly appointments, since inpatient treatment was only an exceptional option. Therefore all participants were living in the southwest of Germany. Finally 32 individuals were included. The rest were offered treatment in a treatment study subsequent to the trail at hand.

Patients who decided to participate gave written informed consent. Those who were randomized into the NET-group signed the informed consent at their first appointment for NET in the Outpatient Clinic. Patients in the TU group were contacted for the second appointment half a year after their first psychodiagnostic examination and gave written consent at this second appointment. This procedure is explained by the fact that for the group of asylum seekers it is usually not clear whether a patient is still living in Germany when there is therapy available or the follow up appointment is due. Still, every patient was informed about possible further appointments. The Ethical Review Board of the University of Konstanz approved the informed consent and the study protocol.

All participants were offered a detailed report after participation in the initial psychodiagnostic interview. Therefore the patient would sign a medical release, so that the lawyer, social

worker, psychotherapist or physician could be contacted, existing files could be requested, and narrations could be referred.

Table 9-1 shows the sociodemographic characteristics of the participants in the treatment study. The randomization procedure resulted in same group sizes. There were systematic group differences only concerning analgetic medication (p =.004) and autoaggressive behavior (p = .009), but in no further sociodemographic variable as confirmed by Pearson χ^2-Tests, Fisher's Exact Tests, t-Tests, and Mann-Whitney-U Tests, if unequal variances were assumed.

Table 9-1 Sociodemographic characteristics of patients in the different treatment groups

	TU (n = 16)		**NET** (n = 16)	
Age (SD)	31.6	(7.7)	31.1	(7.8)
Sex N (%)				
Male	11	(68.8)	11	(68.8)
Female	5	(31.3)	5	(31.3)
Marital status N (%)				
Without partner	7	(43.8)	4	(25.0)
With partner	9	(56.3)	8	(75.0)
No. of children (SD)	2.6	(2.8)	2.0	(1.5)
Education (SD)	6.7	(4.6)	8.0	(5.8)
Ethnicity N (%) (df = 4)				
Kurdish	15	(93.8)	10	(68.8)
Albanian	1	(6.3)	1	(6.3)
Algerian	-	-	2	(12.5)
Roma	-	-	1	(6.3)
Cameroon	-	-	1	(6.3)
Refugee / torture survivor N (%)				
Refugee	1	(6.3)	3	(18.8)
Torture survivor	15	(93.8)	13	(81.3)
Housing N (%)				
Refugee accommodation	11	(68.8)	15	(93.8)
Apartment	5	(31.3)	1	(6.3)
Months living in exile (SD)	47.6	(39.5)	63.5	(45.5)
No. of detentions (SD)	27.0	(61.6)	8.7	(15.2)
No. of days imprisoned (SD)	122.8	(287.5)	49.3	(86.9)
Age at first traumatic event (SD)	17.6	(6.6)	15.1	(7.3)
Age at first torture (SD)	21.9	(7.7	21.7	(10.5)
No. of family members missing / murdered (SD)	0.5	(0.9)	0.6	(0.8)
No. of family members imprisoned / tortured (SD)	0.8	(0.9)	1.2	(1.5)

	TU (n = 16)		**NET** (n = 16)	
Anxiolytics N (%)	2	(12.5)	3	(18.8)
Neuroleptics N (%)	1	(6.3)	1	(6.3)
Antidepressants N (%)	7	(43.8)	10	(62.5)
Analgetics N (%)	11	(68.8)	3	(18.8)
Barbiturates N (%)	5	(31.3)	4	(25.0)
Alcohol abuse/dependency N (%)	0	(100.0)	0	(100.0)
Substance abuse/dependency N (%)	0	(100.0)	0	(100.0)
Drug abuse (medication) N (%)	4	(25.0)	2	(12.5)
Cigarettes per day (SD)	15.2	(17.2)	15.8	(18.6)
Head injury N (%)				
Beatings to face / head and craniocerebral injury	14	(87.5)	11	(68.8)
No head injury	2	(12.5)	5	(31.3)
Psychotherapy (besides NET) N (%)	6	(37.5)	9	(56.3)
Previous inpatient treatment (SD)	0.1	(0.3)	0.3	(0.4)
Autoaggressive behavior N (%)	2	(12.5)	9	(56.3)
Lack of impulse control N (%)	4	(66.7)	4	(66.7)
Suicidal tendency N (%)				
Plans; attempts	4	(25.0)	9	(56.3)
Ideation; no tendency	12	(75.0)	7	(43.8)

Note. NET = Narrative Exposure Therapy; TU = Treatment as Usual

Immigration status was also monitored across all time points. The groups did not differ with regard to immigration status at pre and 6-month evaluation as confirmed by Fisher's Exact tests. At 2-year follow-up significantly more participants in the TU group held a permanent residence permit in comparison with patients in the NET group (p = .04).

Table 9-2. Immigration status of participants in both treatment groups across time points.

	pre		**6-month**		**2-year**	
	TU n = 16	NET n = 16	TU n = 16	NET n = 14	TU n = 10	NET n = 12
Status of immigration n (%)						
Asylum seeker	5 (31.3)	4 (25.0)	2 (12.5)	3 (21.4)	-	-
Exceptional leave to remain	11 (68.8)	11 (68.8)	13 (81.3)	10 (71.4)	2 (20.0)	8 (66.7)
Lasting residence permit	-	1 (6.3)	1 (6.3)	1 (7.1)	8 (80.0)	4 (33.3)

Note. NET = Narrative Exposure Therapy; TU = Treatment as Usual

McNemar testing within groups and between time points using Bonferroni correction (α = 0.0167) revealed a significant change with regard to immigration status in the TU group between pre and 2-year follow-up (p = .008) and 6-month and 2-year follow-up, respectively (p = .008), but no significant change between pre and 6-month follow-up (p = 1.0). Calculations for the NET group did not show any significant changes between pre and 6-month (p = 1.0), pre and 2-year (p = .1) as well as 6-month and 2-year follow up (p = .4).

9.2.3 Instruments

The diagnostic examinations were conducted as structured clinical interviews. For detailed information about demography, health, education, marital as well as asylum status a sociodemographic questionnaire developed by the Psychotrauma Research- and Outpatient Clinic was conducted. The DSM-IV diagnosis, symptom frequency and severity of PTSD were assessed using the PTSD part of the Composite International Diagnostic Interview (CIDI K, WHO, 1997) as well as the Posttraumatic Stress Diagnostic Scale (PDS, Foa, 1995b). For the assessment of traumatic experiences during war, imprisonment and torture, respectively, the Konstanz Checklist of Organized Violence was administered. It consists of 44 items that can be divided into two subscales “torture events” and “war experiences”, respectively. The scale is structured comparable to the checklist Basoglu et al. (1994b) used for the comparison of tortured with non-tortured political activists in Turkey and includes further items based on experiences with traumatized asylum seekers. In addition, somatoform and dissociative disorders were assessed using the corresponding part of the CIDI (CIDI C, WHO, 1997). For data analyses two symptom scores were gathered from CIDI C: sum of conversional as well as for pain symptoms. The Hopkins Symptom Checklist 25 (HSCL-25, Derogatis et al., 1974) was used to indicate co-morbid symptoms of anxiety and depression, including one question concerning suicidality.

Interviews were conducted by trained clinical psychologists of the University of Konstanz and with the help of interpreters to ensure a correct understanding of the symptoms.

9.2.4 Procedure

Each respondent received one initial interview (sociodemographics, vivo-Checklist of Organized Violence, PDS, HSCL-25, CIDI C & K). An additional part of the diagnostic appointments at the Psychotrauma Research- and Outpatient Clinic for Refugees was a neuropsychological examination using magnetoencephalography (MEG) at pre and 6-month follow-up, measuring brain activity in reaction to emotional stimuli. The evaluation of the later is not part of the thesis at hand and will furthermore not be mentioned.

Interviews with female survivors of organized violence were conducted by female interviewers, and with the help of female interpreters. All interpreters were being trained for interviews and psychotherapy with torture survivors and signed an official / professional discretion in the beginning of each diagnostic interview as well of a psychotherapy. Each participant was randomly assigned to one of the two groups: NET, or TU, using a systematic procedure to receive equal groups. The NET treatment condition consisted of an average of 9 treatment sessions (*SD* = 4; min. = 5, max. = 17). However, the therapist's estimate concerning habituation and symptom reduction was decisive for the termination of NET. If a client could talk about his / her traumatic experiences and report the emotions thereby experienced in detail and chronological order without avoidance, memory gaps, or being emotionally overwhelmed, NET could be ended.

If the time span between the diagnostic screening and the onset of treatment exceeded 4 weeks, PDS and HSCL-25 were conducted again to confirm the diagnoses. The subsequent treatment sessions were scheduled on a weekly to biweekly basis. The duration of a treatment session was approximately 120 minutes. Treatment took place at the Psychotrauma Research- and Outpatient Clinic for Refugees. All except for two treatments were conducted as outpatient treatments. For two patients in-patient treatment was offered since the distance between their place of residence and the clinic would have been too great and because of acute suicidality at that time, respectively.

The first follow-up was conducted half a year after the first appointment and the ending of the NET-treatment, respectively, using the same battery of interviews as for the first examination. Further follow-up interviews after 2 years comprised PDS, HSCL-25 and CIDI C besides the vivo-Checklist of Organized Violence and sociodemographics.

Interviewers were not blind for the individual participant's treatment condition, since most participants asked for a second report, which is why the particular psychologist needed to be informed about the written records or files of the participant. However, post-tests have been

carried out by clinical psychologists different from those who carried out the first interview as well as NET treatment if conducted.

9.2.5 Treatment

Narrative Exposure Therapy (NET): NET treatment was carried out by therapists from the University of Konstanz and with the help of interpreters. Therapists were PhD level psychologists and graduate students with education and experiences in other treatment approaches including counseling. M.S., F.N. and T.E., who developed the treatment, trained them in NET. Supervision was carried out by F.N. and M.S. as well as through peer supervision. Treatment adherence was monitored by the participant's life history recorded so far. In addition, selected treatment sessions were directly observed by M.S. or F.N. No major deviations from treatment protocol were detected. The first session always included psycho-education about the nature and prevalence of PTSD symptoms. The goal of the procedure was to explain the PTSD-related symptoms and dysfunction that frequently occur after multiple traumatic experiences. Psycho-education was followed by the explanation of the NET rationale. The procedure is explained in detail in chapter 7.1.6.

Treatment as Usual (TU): TU was defined as any kind of treatment a patient would ask for due to his / her psychological condition. This included psychotherapy or drug treatment outside the Psychotrauma Research- and Outpatient Clinic for Refugees as well as no treatment. At pre-testing 9 (56.3%) of the 16 participants reported either taking medication alone (3, 18.8%) or receiving psychotherapy and medication (6, 37.5%). Seven participants (43.8%) reported receiving no further treatment. The later did not differ significantly from those with treatment at any time point on the outcome variables. Moreover, except for one participant all received medication and/or psychotherapy at some point during the trial. We neither controlled for type of therapeutic treatment, number or length of sessions nor for the participants' compliance.

9.3 Results

9.3.1 Participation

As a consequence of randomization 16 participants were offered NET, and 16 patients participated in the TU group. In the NET group one patient received further psychotherapy after NET due to hyperventilation tetania and another one refused to participate, which constitutes a drop out rate of 12.5%. There were no dropouts in the TU group. At 2-year follow up 10 (62.5%) TU group participants and 12 (75.5%) NET group participants could be interviewed. Four participants could not be located, one was known to be deported, two respondents could not attend interviews since they did not get a day off at work and one women refused since she was in the late phase of her pregnancy.

9.3.2 Traumatic Events and Detention

The participants reported an average of 4 to 5 different types of traumatic experiences according to the PSD event list (see Table 9-4). Out of these the majority of respondents (56.3%) indicated torture as the most severe type of event they had experienced, reporting 5 to 40 different torture techniques they had survived. Overall, 29 participants claim to have been imprisoned and tortured. Because of unreliable reports of one participant, only 28 of the torture survivors are included in the following statistics. The numbers concerning traumatic events and detentions show a great variance, so that besides the mean, mode and median are presented among others to describe the data more appropriately. Table 9-3 shows the numbers and percentages of traumatic events according to the PDS event list that the participants survived. In addition, the worst events are presented. Table 9-5 refers to the forms of torture as reported by the 28 survivors of imprisonment and torture, respectively.

Table 9-3: Number and percentages of traumatic events according to PDS event list and worst events

Event	***n***	**(%)**	**Worst event n**	**(%)**
1. Serious accident, fire, explosion	7	(21.9)	1	(3.1)
2. Natural disaster	7	(21.9)		
3. Violent assault on a familiar person (witnessing)	29	(90.6)	9	(28.1)
4. Violent assault by a stranger (experiencing)	20	(62.5)		
5. Sexual assault by familiar person	1	(3.1)		
6. Sexual Assault by a stranger	6	(18.8)	4	(12.5)
7. Military combat / war zone	23	(71.9)		
8. Sexual contact before 18 yrs. with a person at least 5 yrs. Older	2	(6.3)		
9. Imprisonment	9	(28.1)		
10. Torture	27	(84.4)	18	(56.3)
11. Life-threatening illness	2	(6.3)		
12. Other traumatic experience	11	(34.4)		

Note: event: several indications per person; worst event: one indication per person.

Table 9-4: Descriptive statistics for traumatic events according to PDS, detentions, days in detention, forms of torture survived.

	m	**SD**	**Median**	**Mode**	**Min.**	**Max.**	**Range**
Traumatic events according to PDS	4.5	1.5	4.5	4	1	7	6
No. of detentions	19.7	47.0	3.0	3	1	250	249
No. of days in detentions	95.0	221.4	27.0	7	1	1100	1099
No. of forms of torture – pre (n = 28)	25.6	7.2	25.5	29	5	40	35
No. of forms of torture – post (n = 26)	27.7	6.5	27.0	24	13	37	24

Table 9-5: Forms of torture reported by 28 survivors according Konstanz Checklist of Organized Violence, subscale Torture Events

Forms of torture	**n**	**(%)**
Imprisonment	28	(100.0)
Insults / verbal abuse	28	(100.0)
Threats against family	27	(96.4)
Beatings (body)	27	(96.4)
Threats of further torture	27	(96.4)
Hearing others being tortured	25	(89.3)
Blindfolding	25	(89.3)
Beatings (head)	24	(85.7)
Threats of death	24	(85.7)
Rope bondage	23	(82.1)
Deprivation of medical care	23	(82.1)
Food deprivation	21	(75.0)
Forced standing	21	(75.0)
Being stripped naked	20	(71.4)
Being pulled by the hair	20	(71.4)
Isolation	20	(71.4)
Threats of rape	19	(67.9)
Uncontrollable bladder /bowel evacuation during torture	18	(64.3)
Sleep deprivation	18	(64.3)
Exposure to extreme heat or cold	18	(64.3)
Prevention of personal hygiene	18	(64.3)
Beatings (private parts)	17	(60.7)
Fondling of genitals	17	(60.7)
Water deprivation	17	(60.7)
Restriction of movement	17	(60.7)
Sham execution	16	(57.1)
Beatings (sole of feet; “Falaka”)	15	(53.6)
Alternating rough/gentle treatment	15	(53.6)
Other	15	(53.6)
Cold showers	14	(50.0)
Asphyxiation	13	(46.4)
Twisting of testicles	12	(42.9)
Prevention of urination/defecation	12	(42.9)
Hanging by wrists	10	(35.7)
Rape	8	(28.6)
Vermin-infested surroundings	8	(28.6)
Submersion in water	8	(28.6)
Electrical torture	7	(25.0)
Witnessing torture	7	(25.0)
Stretching of extremities	6	(21.4)
Excrement in food	5	(17.2)
Burning	4	(14.3)
Throwing feces/urine at detainee	3	(10.7)
Needles under toenails or fingernails	2	(7.1)

9.3.3 Symptom Scores

Table 9-6 presents the results of the symptom scales for the time points pre, 6-month and 2-year follow-up. All participants who were randomized to treatment were included in the analyses, also including the one dropout and the patient with continued treatment.

Repeated measure ANOVA's were calculated with time as three level within-subject factor and the treatment group as two level between-subject factor for each outcome measure. Significant interactions between time and treatment were considered as the relevant indicators of a different development of the treatment groups over time. Mauchly's tests were calculated to test for the sphericity assumption of the univariate ANOVA. The sphericity assumption was met for PDS, HSCL-25, CIDI C (conversion & pain symptoms) as well as suicidal tendency. With regard to the small sample size, missing data was estimated using a restricted maximum likelihood procedure. Since the immigration status has been found to influence psychiatric morbidity (Davis & Davis, 2006) and with regard to the significant change from preliminary to lasting residence permits in the TU group, immigration status was added as covariate to control for possible confounding effects. Though the treatment groups differed concerning autoaggressive behavior as well as analgetic medication at pre-testing these variables were not considered to be of relevant influence concerning the main therapy outcome and were therefore not included in the ANOVAs as covariates. Differences between the treatment groups were moreover examined with two contrast analyses for each outcome measure. In each of these analyses the treatment groups were compared with regard to changes in the mean of the outcome variable between pre and 6-month follow-up as well as between 6-month and 2-year follow-up. As two calculations were carried out for each measure, significance level was Bonferroni corrected to $\alpha = 0.025$ for the contrast analyses.

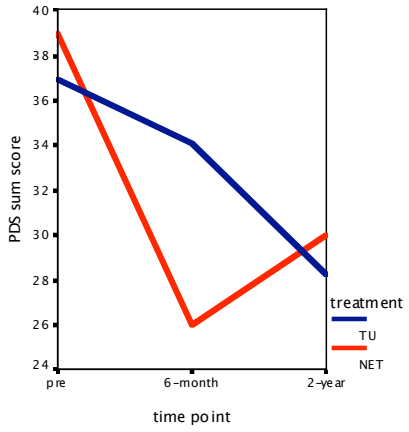

Figure 9-1. PDS sum scores pre, 6-month and 2-year follow-up for both treatment groups.

A significant Time x Treatment interaction was found for the PDS sum score (F(2, 47) = 4.2, p =.02). The contrast analyses revealed that the NET group had a better improvement between pre and 6-month evaluation in comparison with the TU group (p = .008), and that between the 6-month and the 2-year evaluation symptoms did not change significantly in both groups (p = .06). With regard to PDS subscores a significant Time x Treatment interaction was found for intrusive symptoms (F(2, 47) = 4.2, p = .02) and contrast analyses revealed a significant interaction between pre and 6-month (p = .009) but no significant interaction between 6-month and 2-year time point (p = .05). Also with regard to arousal a significant interaction was found (F(2, 47) = 4.2, p = .02). Contrast analyses revealed significant interactions for the time between pre and 6-month follow-up (p = .02), indicating a better improvement of the NET group, and between 6-month and 2-year follow-up (p = .02) with a reverse pattern. Avoidance symptoms did not change significantly over time (F (2, 47) = 1.3, p = .3; pre to 6-month p = .1; 6-month to 2-year p =.6).

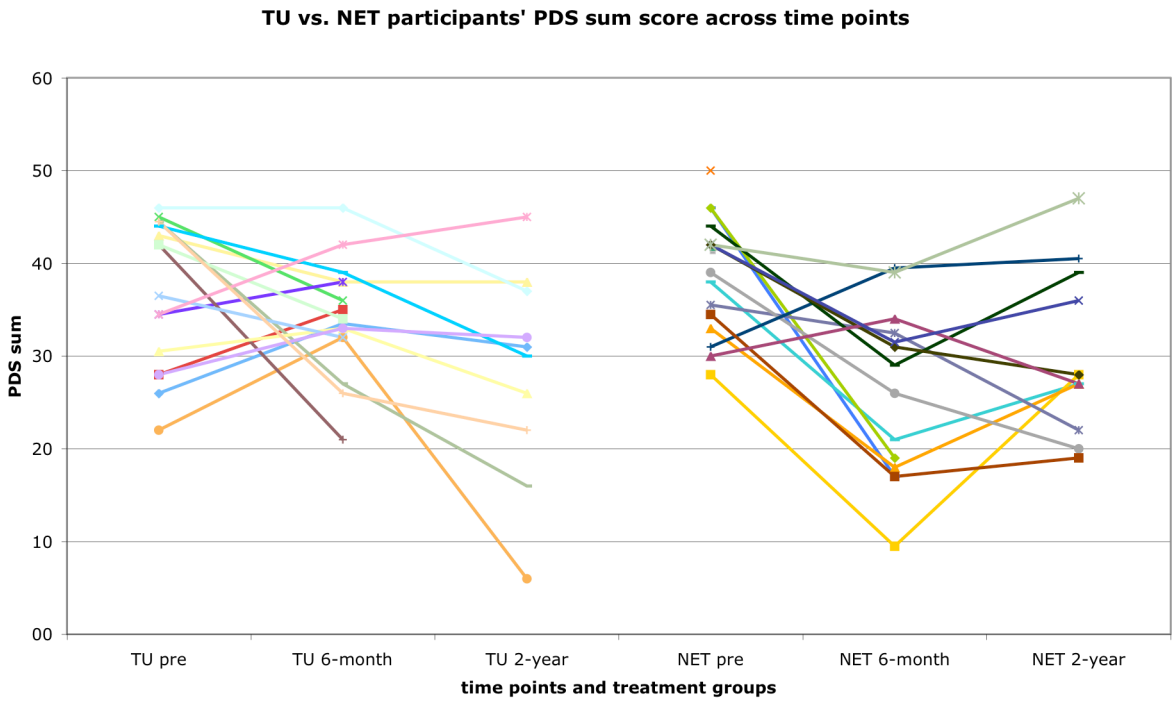

Figure 9-2. PDS sum scores accross time points and per treatment group

Contrary to our hypothesis, no significant Time x Treatment interaction was found for HSCL-25 anxiety ($F(2, 45) = 0.6$, $p = .6$), neither in the post hoc contrast analyses (pre to 6-month $p = 0.4$; 6-month to 2-year $p = .8$). A comparable pattern was found for HSCL-25 depression ($F(2, 45) = 1.4$, $p = .3$; pre to 6-month $p = .2$; 6-month to 2-year $p = .8$). Also with regard to suicidal tendency no significant Time x Treatment interaction was found ($F(2, 45) = .6$, $p = .5$; pre to 6-month $p = .3$; 6-month to 2-year $p = .8$).

For the CIDI C pain score no significant Time x Treatment interaction was found ($F(2, 47) = 3.0$, $p = .06$; pre to 6-month $p = .03$; 6-month to 2-year $p = .07$). Also the ANOVA for conversion symptoms did not reveal a significant Time x Treatment interaction ($F(2, 47) = 1.3$, $p = .3$; pre to 6-month $p = .8$; 6-month to 2-year $p = .1$).

9.3.4 Clinical Significance

Effect sizes (see Table 9-6) were calculated as the change of the mean between pre- and post-test divided by the pooled standard deviation of the outcome variable at pre- and 6-month and 2-year follow-up as well as 6-month and 2-year follow-up. Not all participants filled out the HSCL-25. In the NET group the HSCL-25 was available from 15 participants at pre, in the TU group from 15 participants at 6-month follow-up.

In the NET group only one patient did not fulfill the DSM-IV criteria for PTSD at 6-month follow-up, in the TU group all participants still held a PTSD diagnosis. Accordingly, there was no significant difference between the two groups (Fisher's Exact Test, $p = .47$). At 2-year follow-up two participants in each group did not fulfill the PTSD criteria any longer, again the groups did not differ with regard to PTSD diagnosis (Fisher's Exact Test, $p = 1.0$).

Table 9-6 Means, standard deviations and effect sizes of the outcome variables by treatment groups

	pre	6-month FU	2-year FU	ES pre-6m	ES pre-2year	ES 6m-2year
n						
TU	16	16	10			
NET	16	14	12			
Posttraumatic Stress Diagnostic Scale (PDS)						
TU	36.9 (8.0)	34.1 (6.1)	28.3 (11.4)	0.4	0.9	0.6
NET	38.9 (6.4)	26.0 (9.2)	30.0 (8.7)	1.6	1.2	-0.5
PDS intrusions						
TU	11.0 (3.4)	10.9 (2.8)	8.5 (3.4)	0.0	0.7	0.8
NET	11.6 (2.4)	7.7 (3.0)	8.9 (2.8)	1.4	1.0	-0.4
PDS avoidance						
TU	14.8 (4.0)	12.6 (3.7)	10.9 (5.4)	0.6	0.8	0.4
NET	15.5 (3.3)	10.4 (3.4)	11.1 (4.5)	1.5	1.1	-0.2
PDS arousal						
TU	11.2 (2.6)	10.6 (2.7)	8.9 (4.9)	0.2	0.6	0.4
NET	11.8 (2.6)	7.9 (4.1)	10.0 (3.4)	1.1	0.6	-0.6
Hopkins Symptom Checklist 25 (HSCL-25) – Anxiety						
TU	2.9 (0.5)	2.8 (0.6)	2.7 (0.7)	0.2	0.3	0.2
NET	3.0 (0.6)	2.5 (0.6)	2.6 (0.8)	0.8	0.6	-0.1
Hopkins Symptom Checklist 25 (HSCL-25) – Depression						
TU	3.0 (0.5)	2.9 (0.5)	2.6 (0.9)	0.2	0.6	0.4
NET	3.0 (0.4)	2.6 (0.6)	2.5 (0.6)	0.8	1.0	0.2
Suicidality						
TU	2.3 (0.9)	2.4 (1.2)	2.1 (1.5)	- 0.1	0.2	0.2
NET	2.4 (1.1)	2.1 (1.1)	1.8 (1.1)	0.3	0.6	0.3
Composite International Diagnostic Interview (CIDI) – C pain						
TU	3.9 (2.7)	5.4 (1.7)	1.7 (2.4)	- 0.7	0.9	1.8
NET	5.6 (2.5)	4.3 (2.4)	3.2 (2.9)	0.5	0.9	0.4
Composite International Diagnostic Interview (CIDI) – C conversion						
TU	8.4 (5.1)	8.4 (4.7)	3.2 (4.1)	0.0	1.1	1.2
NET	8.3 (3.8)	6.9 (4.3)	6.0 (5.6)	0.4	0.5	0.2

Note. NET = Narrative Exposure Therapy; TU = Treatment as Usual; ES = effect size

9.3.5 Drug Treatment

Drug intake was monitored at pre, 6-month and 2-year follow-up and is displayed in Table 9-7. An ANOVA with repeated measures did not show a significant Time x Treatment interaction with regard to overall medication, calculated as sum of different groups of medication ($F(2, 46) = .4$; $p = .7$; pre to 6-month $p = .8$; 6-month to 2-year $p = .5$). In addition, crosstabulations were calculated between and within the treatment groups for the different time points. Except for the different analgetic use in the 2 groups at pre testing no further statistically significant results were found.

Table 9-7. Number and percentage of patients concerning drug intake per class of medication and time point

Treatment	**Pre**		**6-month**		**2-year**	
	Yes	No	Yes	No	Yes	No
n						
TU	16		16		10	
NET	16		14		11	
Anxiolytics N (%)						
TU	2 (12.5)	14 (87.5)	1 (6.3)	15 (93.8)	1 (10.0)	9 (90.0)
NET	3 (18.8)	13 (81.3)	3 (21.4)	11 (78.6)	1 (9.1)	10 (90.9)
Neuroleptics N (%)						
TU	1 (6.3)	15 (93.8)	0 (0.0)	16 (100.0)	1 (10.0)	9 (90.0)
NET	1 (6.3)	15 (93.8)	2 (14.3)	12 (85.7)	2 (18.2)	9 (81.8)
Antidepressants N (%)						
TU	7 (43.8)	9 (56.3)	6 (37.5)	10 (62.5)	2 (20.0)	8 (80.0)
NET	10 (62.5)	6 (37.5)	5 (35.7)	9 (64.3)	5 (45.5)	6 (54.5)
Analgetics N (%)						
TU	11 (68.8)*	5 (31.3)	7 (43.8)	9 (56.3)	2 (20.0)	8 (80.0)
NET	3 (18.8)	13 (81.3)	5 (35.7)	9 (64.3)	4 (36.4)	7 (63.6)
Barbiturates N (%)						
TU	5 (31.3)	11 (68.8)	6 (37.5)	10 (62.5)	2 (20.0)	8 (80.0)
NET	4 (25.0)	12 (75.0)	4 (28.6)	10 (71.4)	4 (36.4)	7 (63.6)
Sum of Medications N (SD)						
TU	0.9 (1.2)		0.8 (0.8)		0.6 (1.3)	
NET	1.1 (0.9)		1.0 (1.0)		1.1 (1.1)	

Note. NET = Narrative Exposure Therapy; TU = Treatment as Usual. * TU vs. NET: $p < 0.01$

9.3.6 Retest-reliability of the Vivo-Checklist of Organized Violence, Subscale Torture Events

Table 9-4 presents descriptive data concerning the sum of different torture techniques reported at the time points pre and 6-month follow-up and for all participants who claim to have survived torture and imprisonment (n = 28). The paired sample t-test for this sample and with regard to the number of different types of torture reported at the two time points is significant ($t(25) = -2.763$; $p = .011$). Still, the significant Pearson correlation indicates test-retest reliability of the reports ($r_{tt} = .808$; $p < .001$).

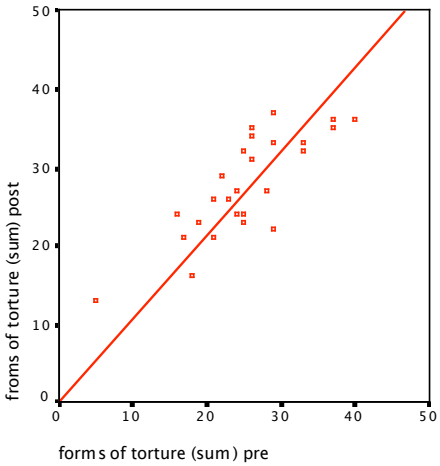

Figure 9-3. Correlation of reported torture events pre to 6-month follow-up.

Paired t-tests did not reach significance for the NET group alone ($t(11) = -1.66$, $p = .12$), nor for the TU group alone ($t(14) = -2.15$; $p = .051$). However, the test-retest reliability is significant for both groups (NET: (n = 12): $r_{tt} = .903$, $p < .01$; TU:(n = 14): $r_{tt} = .604$, $p = .022$). The z-test, conducted to test for a difference in correlations between treatment groups, did not reach significance at the .05 level ($z = 1.77 < 1.96$). Figure 9-4 displays the individual correlation of the reported number of traumatic events for each participant in the corresponding group.

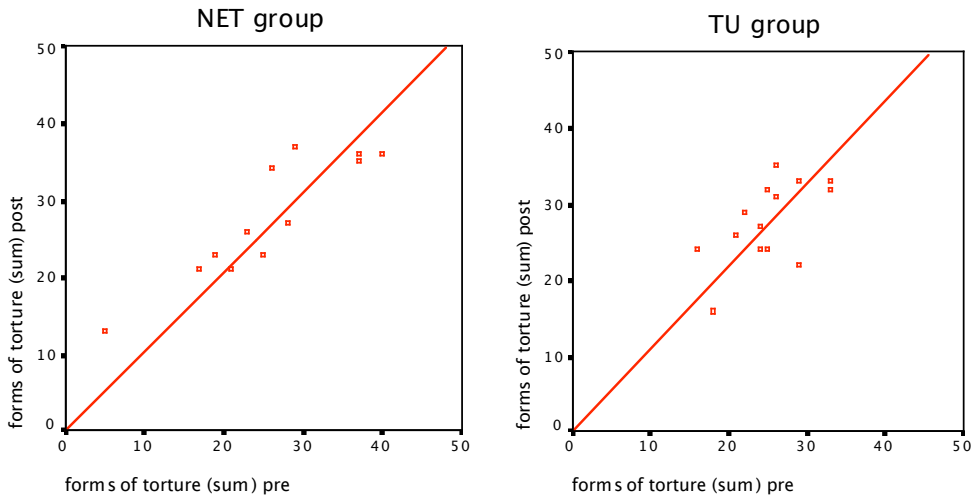

Figure 9-4. Correlation of reported forms of torture pre to post interview per group.

9.4 Discussion

We conducted a controlled trial to evaluate the efficacy of Narrative Exposure Therapy in comparison with treatment as usual in a group of severely traumatized asylum seekers. All but one of the participants who presented with PTSD in the screening interview agreed to participate in treatment and one asylum seeker received further treatment after NET due to hyperventilation tetania. The drop out rate of 12.5% until the 6-month follow-up is remarkably lower than reported in other treatment studies on exposure treatment for PTSD with rates ranging from 20.5% up to 50% (Grinage, 2003; Hembree et al., 2003). Treatment in the present study did not involve additional homework to the exposure treatment, which is a main difference to other studies (e.g., Foa et al., 2005; B. O. Rothbaum et al., 2005; Taylor et al., 2003). Furthermore, the motivation to receive a written biography upon completion may be a motivator. Most participants in the NET group reported submitting this document to the court as proof of human rights violations, with the consequence of being granted asylum. In addition, some would pass the testimony to human rights organizations to indicate that, for example in Turkey, torture is still practiced.

Participants entered the study with very high scores of 36.9 (*SD* = 8.0) to 38.9 (*SD* = 6.4) in the PDS, indicating a high symptom severity. Other studies on exposure treatment for PTSD and using the PTSD Symptom Scale Interview (PSS-I, Foa, Riggs, Dancu, & Rothbaum, 1993), the interview version of the PDS (Foa, 1995b), reported lower symptom scores, ranging

from 26.1 (Nishith et al., 2005) to 34.0 (Foa et al., 2005) in survivors of childhood abuse, rape, and physical assault. Also with regard to studies on traumatized refugees and asylum seekers the present population displayed rather high symptom severity. Two studies on comparable samples report study entry rates of 30 to 38.4 (Birck, 2004; Paunovic & Ost, 2001) according to PDS and PTSD Symptom Scale Self Report (PSS-SR, Foa et al., 1993), respectively. Since symptom scores in traumatized asylum seekers as survivors of organized violence seem to be elevated in comparison with survivors of civil traumata, the high symptom severity in the present sample cannot be attributed to aggravation tendencies in conjunction with the asylum application procedure.

We observed a change in symptom severity over the time points in both groups. However, within the first 6 months the NET group presented with a significantly better outcome on the PDS than the TU group, which cannot be attributed to spontaneous recovery, as the TU participants did not improve in the same way. A therapist effect can also be ruled out since several therapists conducted the treatments. Moreover, the treatment effects remained stable as found at the 2-year follow-up, which indicates lasting treatment effects. Participants in the TU group did not improve between pre and 6-month follow-up. A comparable result has been found by Sachsse and colleagues (2006) who compared trauma-focused inpatient treatment with outpatient treatment as usual in patients suffering from PTSD and BDP. Participants received TU during a 7.5-month waiting period and did not improve during this time span. Birck (2004) also found no symptom change in traumatized asylum seekers due to non-manualized psychotherapeutic treatments with weekly sessions during an average of 10 months. However, patients in the present TU group improved, though not significantly, between 6-month and 2-year follow-up. Yet, the majority of participants in this group received a lasting residence permit during this period of time, which has been found to influence psychiatric morbidity (Davis & Davis, 2006). Accordingly, it remains unclear, whether the improvement of the TU participants can be attributed to treatment effects or to a change towards a secure living situation.

Despite the improvement of the participants, symptom scores still remained high, and only two patients in each group no longer fulfilled the DSM-IV criteria for PTSD at 2-year follow-up. The high symptom scores at post-test may be due to the chronic progression of post-traumatic symptoms in the participants, since the first traumatic event was 14 to 16 years ago and the first torture experience was on average 10 years ago at evaluation. The majority of asylum seekers reported an immediate symptom onset after the first traumatic experience or after

the first torture experience; accordingly, they suffered from PTSD for at least 10 years before their evaluation at the Research- and Outpatient Clinic for Refugees. Taking also the additional stressors of the flight as well as post-migration into account, the amount of 9 NET sessions on average may be considerable. A greater effect seems to be difficult to achieve in a population that still lives objectively under unsafe conditions, as was still true for the NET group at 2-year follow-up. Moreover, the fact that interpreters were needed for the treatment sessions could also have an impact on the outcome. On the one hand, time for translation reduced the actual amount of therapeutic intervention within the sessions. On the other hand, the patient was challenged to speak about the most painful experiences with two persons he was not well acquainted with in the beginning of the treatment. Yet, the experience that not only the therapist can handle the report of the traumatic experiences may also be helpful in the process of habituation.

The treatment effect of 1.6 on posttraumatic symptoms at 6-months follow-up indicates a clinically significant change for PTSD symptoms in the NET group that did not occur in the TU group. It furthermore supports the effect size of the first NET trial at 1-year follow-up (1.6, Neuner et al., 2004b). However, symptom scores in the present study were higher in the beginning, so that despite a significant symptom reduction, the majority of participants still fulfilled the DSM-IV criteria for PTSD at follow-up-tests. Still, the results show that exposure therapy can lead to a significant posttraumatic symptom relief in traumatized asylum seekers, who are living under permanent threat of deportation to their home countries and have to deal with post-migration stressors. The effect size of 1.2 between pre and 2-year follow-up also indicates the stability of large treatment effects due to NET. Even though the TU group also displayed a large effect size for the later time span, NET led to a faster relief from severe posttraumatic symptoms. Treatment as usual again seems to reach small to moderate effect sizes between the single time points. However, after two years and with the change to a lasting residence permit, it led to a comparable symptom reduction as NET did within the first 6 months with regard to the symptom scores.

Exposure treatment in the RCT by Paunovic and Ost (2001) on refugees in Sweden resulted in a significant symptom reduction leading to an effect size of 2.6. However, participants in the Swedish trial not only received more and longer therapy sessions over a longer period of time in comparison with participants in the present trial, they also were living under relatively

safe conditions holding a lasting residence permit and moreover did not need interpreters during treatment because of sufficient language proficiency.

The circumstances of permanent threat of deportation as well as post-migration stressors may also explain the fact that no significant symptom changes were found in both groups with regard to anxiety and depression symptoms (see also Carlsson, Mortensen, & Kastrup, 2005; Porter & Haslam, 2005). Except for two participants who were granted asylum, all were still in the application process at 6-month follow-up, which implies several restrictions in the daily life such as living in a reception center, no working permit and little allowance, but also often being separated from the family and the lack of a social network since often asylum seekers from different countries live in one place. For example, lack of employment has been found to be associated with anxiety and depression (Blair, 2000; Lavik et al., 1996; K. E. Miller et al., 2002). In addition, the asylum seekers need to adapt to the new culture, which presumes learning the language as well as culture specific manners. Steel and colleagues (2004) found that asylum seekers often perceive their future to be entirely in the hand of an impersonal bureaucracy, which intensifies feelings of helplessness and loss of control over one's life. Also, Basoglu et al. (2005) report that fear of threat to safety and loss of control over life appeared to be the most important mediating factors in PTSD and depression. However, at 2-year-follow up the majority of TU participants held a lasting residence permit but only a small effect size was found for anxiety, a moderate effect size for depression. In contrast to the TU group, the corresponding outcome data of the NET group showed a large effect size at the 6-month follow-up as well as between pre and 2-year follow-up. This may be due to the strong co-morbid relationship of anxiety and depression with PTSD. In addition, changes in fear of losing affective control predict changes in PTSD and depressive symptoms (Price, Monson, Callahan, & Rodriguez, 2006). Accordingly, the reduction of posttraumatic symptoms and the experience of being able to handle trauma related feelings may in the consequence lead to decreased anxiety and depressive symptoms. Moreover, the stability of posttraumatic symptoms in the NET group between 6-month and 2-year follow-up and the lack of change with regard to anxiety and depressive symptoms during this time period supports the previous assumption. As with PTSD symptoms depression and anxiety may decrease but symptoms persist until safe and predictable living conditions exist and the individual finally can get accustomed to it. However, as the claims for asylum remain undecided, depressive symptoms may increase over time since applicants experience ongoing severe stress, such as fear of being repatriated, barriers to work and social services, and separation from family (Sinnerbrink et al., 1997; Sultan & O'Sullivan,

2001). Accordingly, more comprehensive treatment strategies, addressing not only PTSD symptoms but also accompanying conditions may allow at least some relief before a final decision concerning the immigration status.

The suicidal tendency did not change significantly between the two groups and over time. Yet, effect sizes indicate a moderate reduction between pre and 2-year follow-up in the NET group. The later not only indicates that exposure treatment might positively influence suicidal tendencies, but also refutes arguments, that confrontative approaches enhance suicidality in traumatized patients (e.g., C. B. Becker et al., 2004).

Participants in the TU group did not improve between pre and 6-month follow-up with regard to posttraumatic symptoms. Treatment as usual included psychotherapy as well as drug treatment, but we did not control for treatment approaches or drug intake patterns. However, concerning drug treatment low compliance rates have repeatedly been reported with only 5% to 15.6% of refugees and migrants, respectively, being fully compliant with the prescribed medication (Kroll et al., 1990; Lee et al., 1993; Schmeling-Kludas et al., 2003). Despite guidelines by ISTSS (Foa, 2000) and NICE (2005) psychosocial treatments in the clinical practice have been found to consist of mainly present-focused and resource oriented approaches (C. B. Becker et al., 2004; Rosen et al., 2004). Transferring these findings to the TU group might explain the lack of decrease in post-traumatic symptoms at 6-month follow-up. They may also account for the finding of increased pain symptoms in the TU group, moreover since persistent PTSD is often accompanied by somatization. Nevertheless the later finding may also reflect the fact that fewer participants reported using pain medication at 6-month follow-up. However, the decrease in pain but also in conversion symptoms in the TU group at 2-year follow-up might also rely on the changed asylum status as with posttraumatic symptoms, since somatization, too, is interrelated with daily life stressors (e.g., Dantzer, 2005). The overall symptom reduction might also influence the perception of somatization symptoms. However, the later effect seems to be limited since participants in the NET group presented a strong decrease in PTSD symptom severity but did not receive lasting residence permits and displayed only a slight decrease in somatization symptoms.

The data analyses did not reveal any significant pattern concerning medication and treatment over time. Notwithstanding, calculations were conducted on the overall medication (sum of drugs) at the single time points. The number of drugs of daily or regular intake is comparable in both groups and does not change significantly over the three time points. According to

this finding, medication does not seem to significantly influence psychotherapeutic treatment effects. However, different types of medication have been found to be of varying efficacy in the treatment of PTSD (see chapter 7.2). Therefore, analyses according to type of medication are reasonable. However, the treatment groups differed only with regard to analgetic medication a pre test, as has been discussed above. Still, future studies should more closely monitor drug intake to rule out possible effects since studies have found substantial treatment grains when combining CBT and pharmacotherapy (Otto et al., 2003).

There were some methodological shortcomings in this study. Since the majority of participants were Kurdish, the results of the present trial may not be generalizable to the diverse population of asylum seekers and traumatized refugees in exile. In addition, 84.4% of the participants had various psychotropic medications. The interaction with the psychotherapeutic process may be a moderator variable. However, drug intake was evenly distributed in the two groups and only the additional treatment with NET resulted in decreased posttraumatic symptoms at 6-month follow-up. The number of treatment sessions varied from 5 to 17 sessions. Although a higher number of sessions was associated with shorter duration of the sessions we cannot fully rule out a dosage effect. More standardization with regard to number and duration of treatment sessions is needed in future research. However, since the majority of patients in the NET group benefited from this treatment, more exposure treatment might result in a more pronounced habituation and accordingly in a greater decrease in posttraumatic symptoms. With regard to the standardized instruments, the Posttraumatic Stress Diagnostic Scale (Foa, 1995b) might have a shortcoming with regard to differentiation of symptom severity in the high levels, i.e., more often than 5-times a week. Since survivors of war and persecution are known to suffer from severe symptoms, an evaluation using the PDS might result in a ceiling effect. A more differentiated instrument, such as the Clinician Administered PTSD Scale (Blake et al., 1995), might be more appropriate for judging symptom severity in the group of severely traumatized survivors of organized violence. Also the Hopkins Symptom Checklist 25 (Derogatis et al., 1974) might not distinguish enough between the individuals since it uses rough scaling. Future research might consider other instruments, such as the Hamilton Depression Scale (Hamilton, 1967).

With regard to the vivo-Checklist of Organized Violence the data analyses revealed a high test-retest reliability of the instrument after 6-months. The results indicate that survivors of torture have a stable memory concerning the different types of torture experiences and do not

remember significantly more or fewer events because of certain psychotherapeutic treatment, for example. Out of a number of different experiences the patients do precisely point out those they survived, when asked. Yet, the individuals do not voluntarily speak about these experiences and sometimes also deny some in an effort at avoidance, as is part of posttraumatic symptoms. These findings support results of a study, according to which discrepancies between an individual's account decreased concerning details, which were central to the account (Herlihy, Scragg, & Turner, 2002) – as the different techniques of torture are. The application of the vivo-Checklist of Organized Violence in a diagnostic interview is accordingly appropriate when reliable and specific information concerning the individual torture experiences is needed.

To our knowledge, this is the first controlled trial concerning exposure treatment for severely traumatized asylum seekers in a Western country. The trial shows that confrontative treatment of PTSD can be efficacious even in survivors of organized violence living in insecure conditions. NET was superior to TU with regard to PTSD symptom changes after 6 months and symptom scores remained stable until 2-year follow-up, indicating lasting effects. Future research is needed to confirm these findings. So far, only a case study on CBT with exposure in a tortured asylum seeker by Basoglu and colleagues (2004) reports comparable conclusions. In addition, interactive aspects of immigration status, psychiatric illness and treatment effects (psychotherapy and medication) should be addressed systematically. Co-morbid depression and anxiety symptoms did not improve significantly in the majority of patients. It seems likely that post-migration stressors amplify these symptoms. Individuals with PTSD and co-morbid conditions may also be less capable of dealing with the additional stressors of flight, asylum proceedings and acculturation, and therefore experience more chronic stress resulting in persisting symptoms.

10 Dissemination of Narrative Exposure Therapy – A Naturalistic Study

10.1 Introduction

Treatment guidelines propose trauma-focused approaches in the treatment of PTSD (see Foa et al., 2000; see NICE, 2005), but according to the literature the majority of community therapists rather provides present-focused psychotherapy (C. B. Becker et al., 2004; Rosen et al., 2004). Therefore, a recent priority in mental health services has been the dissemination and implementation of evidence-based treatments (EBTs) or "best practices" (Schoenwald & Hoagwood, 2001). Yet, mental health researchers and practitioners have been debating the appropriateness and practicability of implementing EBTs in community settings. One of the most important practitioners' concerns is that the randomized controlled trials on which EBTs are based define optimal treatment outcomes for narrowly selected patients not representative of those seen in actual practice (Chambless & Ollendick, 2001). Bradley and colleagues (2005) conclude based on a multidimensional meta-analysis of psychotherapy for PTSD, that further studies would need controls in form of treatments as practiced in the community with samples of patients resembling those seen in the community and with the opportunity for more open-ended care. Researchers furthermore would have to demonstrate that EBTs are superior to the clinicians' procedure in the private practice or other settings, to achieve a greater use of the manualized approaches in the community.

In accordance with the latter statement, one prerequisite in the development of Narrative Exposure Therapy (NET; Schauer et al., 2005) was, that it was easy to learn, since people in different cultural settings were supposed to be trained in this approach and to conduct NET with survivors of organized violence. The treatment protocol and aims of NET are explained above (see chapter 7.1.6). Several trials evaluating the efficacy of NET in traumatized refugees (Neuner et al., 2004b) and survivors of political violence (Bichescu, Neuner, Schauer, & Elbert, 2006) showed promising results. Trained psychologists of the University of Konstanz, and of "vivo e.V.", respectively, have conducted all treatments in these trials. In a second step NET training was offered to "lay people", such as other refugees (Onyut, 2006) or teachers (Catani *et al.*, 2005) and again, NET was found to be efficacious in the treatment of PTSD.

With regard to Western Countries, a first trial on NET has been conducted in the Psychotrauma Research- and Outpatient Clinic of the University of Konstanz with traumatized asylum seekers (see chapter 9). Trained clinical psychologists of the University of Konstanz conducted the treatment. The results at post-tests and at follow-up again supported the efficacy of NET. The control group consisted of patients who received treatment as usual (TU) outside the Outpatient Clinic in the community. The latter participants did not improve at post-tests, but at follow-up. However, content and course of TU as carried out by professionals in Germany was neither standardized nor documented.

Accordingly, the focus of the present study was twofold: One goal was to gain information on how treatment is conducted in the private practice and counseling centers in the community with regard to therapeutic approaches and techniques as well as duration, length and intervals of treatment sessions; the evaluation of these treatments with regard to effectiveness was also aspired to.

The second aim was the dissemination and evaluation of Narrative Exposure Therapy as manual-based therapeutic module in the course of psychotherapy for PTSD in the clinical practice. A naturalistic study (Leichsenring, 2004) was therefore carried out, comparing treatment as usual (TU) and TU with the addition of NET (TU-NET) in the clinical practice.

A sample of psychotherapists in southwestern Germany who work in counseling centers and private practices, respectively, was randomly chosen out of participants of a workshop on PTSD in survivors of organized violence, diagnosis and report-writing, which took place at the Psychotrauma Research- and Outpatient Clinic for Refugees. The study was divided into 3 phases, with the 1st phase being a period of time, in which therapists were asked to conduct treatment for PTSD in their usual pattern. The second phase consisted of NET training. Subsequently, therapists were asked to integrate NET into the procedure of treatments with PTSD patients that started after the training (3rd phase).

Standardized instruments were used to measure treatment effects 6 months as well as 1 year after the beginning of treatment. A documentation table was developed to receive information on the actual treatment procedure of each therapist, since there is no “general procedure” of trauma treatment in the clinical practice. The same table was used to collect information on the integration of NET in the treatment procedure. In addition, the participating therapists were asked to give written feedback concerning use, practicability and acceptance of NET. With regard to therapeutic techniques we predicted a primarily present-focused approach

in TU in comparison with more trauma-focused procedures in TU-NET. Instruments with respect to PTSD and depression were the main outcome variables. We predicted a superior efficacy of TU-NET in comparison with TU alone.

10.2 Methods

10.2.1 Setting

The study took place in the southwestern part of Germany, Baden-Württemberg. Community therapists conducted psychotherapies in their practice rooms. Diagnostic interviews were carried out by clinical psychologists of the University of Konstanz either at the Psychotrauma Research- and Outpatient Clinic for Refugees or in the practice rooms of the participating therapists in the time between April 2004 and May 2006. The NET training was conducted at the Psychotrauma Research- and Outpatient Clinic for Refugees in Konstanz. Clinical psychologists of the Outpatient Clinic conducted supervision with regard to NET treatment.

10.2.2 Participants

10.2.2.1 Psychotherapists

At the time of the initialization of this study already two trainings concerning diagnosis of PTSD as well as medico-legal reports for asylum seekers have been conducted. Participants of these trainings, who showed interest in further training, were offered participation in this study. Information about content and procedure of the study were explained in writing and verbally.

One inclusion criterion was that the participant actually held the opportunity to conduct psychotherapies with traumatized patients either in the own practice or in a counseling centre. The therapists also needed to be willing to try to integrate NET into his / her usual treatment procedure in the treatment of PTSD. Furthermore, participation was restricted to the region of southwestern Germany with regard to the diagnostic interviews and the planned supervision appointments.

Out of 42 interested people 21 participants remained due to the prerequisites. Fourteen of these introduced patients for psychodiagnostic interviews and participation in the study and therefore participated at least in the 1st phase of the study.

Fifty percent of the therapists were women and men, respectively. The average age was 46.6 years (*SD* = 9.6), ranging from 27 to 57 at study entry. Five (35.7%) of the participants were working in a counseling centre only and a private practice only, respectively. Four (28.6%) were working part time in both, counseling centre and private practice. With regard to professional training the majority (9; 64.2%) of the participants were psychologists (Diplom-Psychologe) and three (21.4%) were medical doctors. One participant (7.1%) was Gestalt therapist and occupational therapist. Concerning the therapeutic orientation, 6 (42.9%) reported a primary education in cognitive behavioral therapy, and 4 (28.6%) named psychodynamic/psychoanalytic psychology as primary therapeutic approach. Further therapeutic approaches named were hypnotherapy, client-centered therapy, systemic and family therapy, also complex-systemic trauma therapy, neuro-linguistic programming, and trauma therapy.

The participants have been working as therapists for an average of 12.1 years (*SD* = 8.7). Twelve (85.7%) reported working primarily with asylum seekers. However, with regard to number of patients with PTSD treated so far, only 3 therapists reported having treated more than 30 patients. Five therapists reported having treated between 10 to 30 patients suffering from PTSD and 6 reported having treated less than 10 patients.

10.2.2.2 Patients

Patients were included in this study, if they fulfilled the diagnostic criteria of PTSD according to DSM-IV as explored in the diagnostic interview. Exclusion criteria were lesions, psychotic symptoms and substance abuse and dependence. Posttraumatic stress disorder should be the principal diagnosis. In addition, patients should be between the ages of 18 to 65.

In the course of the study the therapists introduced 48 patients for participation in the study. Out of these, 18 (37.5%) were excluded because of the prerequisites: 16 (33.3%) did not meet the criteria for PTSD according to DSM-IV and 2 (4.2%) fulfilled other diagnoses (psychosis, major depression) as principal disorder. Apart from the diagnosis, the excluded persons did not differ from the participants on any sociodemographic variable.

Table 10-1. Sociodemographic characteristics of the treatment groups

		TU (n = 25)		**TU-NET** (n = 5)	
Age (SD)		35.3	(9.3)	28.4	(10.3)
Sex N (%)					
	Male	9	(36.0)	3	(60.0)
	Female	16	(64.0)	2	(40.0)
Marital status N (%)					
	Single	7	(28.0)	3	(60.0)
	Married / with partner	18	(72.0)	2	(40.0)
No. of children (SD)		2.1	(1.7)	0.8	(1.1)
Education in years (SD)		8.8	(4.2)	11.6	(2.4)
Origin / Ethnicity N (%) (df = 5)					
	Turkey (Kurdish)	7	(28.0)	-	-
	Balkan	11	(44.0)	3	(60.0)
	Africa (Algeria, Sierra Leone)	5	(20.0)	-	-
	Germany	1	(3.8)	1	(20.0)
	Russian Federation	2	(7.7)	-	-
	Syria	-	-	1	(20.0)
Housing N (%)					
	Refugee accommodation	11	(44.0)	1	(20.0)
	Apartment	14	(56.0)	4	(80.0)
Months living in exile (SD)		51.2	(50.8)	29.4	(73.3)
Anxiolytics N (%)		5	(20.0)	1	(20.0)
Neuroleptics N (%)		3	(12.0)	-	-
Antidepressants N (%)		10	(40.0)	3	(60.0)
Analgesics N (%)		12	(48.0)	2	(40.0)
Hypnotics N (%)		4	(16.0)	1	(20.0)
Suicidal tendency N (%)					
	Plans; attempts	18	(72.0)	2	(40.0)
	Ideation; no tendency	6	(28.0)	3	(60.0)

Note. TU = treatment as usual; TU-NET = treatment as usual with Narrative Exposure Therapy.

All patients that fulfilled the inclusion criteria were offered participation in the treatment study. The objectives of the trial were fully explained to the patients, especially that participation in the trial would not influence whether or not one would receive psychotherapy. All were willing to participate and gave written informed consent. The Ethical Review Board of the University of Konstanz approved the informed consent and the study protocol.

The study protocol resulted in different group sizes. In addition, not all participants, who entered the study after the NET training, received NET as part of their psychotherapy. This was true for 6 patients of 11, who entered the study in the time after the training. Accordingly, these patients were included in the TU group. Sociodemographic characteristics are presented in Table 10-1. No group differences were found according to statistical analyses.

Since the majority of participants were asylum seekers or refugees, information on the immigration status was also collected, as shown in Table 10-2. The two treatment groups did not differ significantly with regard to immigration status of the participants and the status did not change significantly between time points so that immigration status is presented for the whole group not the single treatment groups.

Table 10-2. Immigration status of participants at evaluations.

	pre (*n* = 30)		**6-months (*n* = 24)***		**12-months (*n* = 20)**	
Status of immigration *n* (%)						
Asylum seeker	6	(20.0)	1	(4.5)	1	(5.0)
Exceptional leave to remain	18	(60.0)	16	(72.7)	14	(70.0)
Residence permit	4	(13.3)	4	(18.2)	4	(20.0)
German citizen	2	(6.7)	1	(4.5)	2	(10.0)

Note. * Information on 2 participants is missing; valid percentages are presented.

The respondents named an average of 7 types of traumatic events (*SD* = 3) they survived. The number of different event types ranged from 2 to 14 as collected with the CAPS event list. The majority of participants (77.4%) reported combat experiences. Other traumatic experiences were physical assault (67.7%), captivity (61.3%), torture (54.4%) and assaults with a weapon (51.6%). With regard to different traumatic experiences during war, imprisonment and torture the participants reported an average of 19 experiences (*SD* = 14) according to the vivo-Checklist of Organized Violence. Based on the information of the two instruments (CAPS and vivo-Checklist of Organized Violence) 67.3% of the respondents reported sexual assaults.

The participants were offered a short psychodiagnostic report for participation if needed and received a compensation for travel expenses.

10.2.3 Instruments

10.2.3.1 Psychotherapists

A questionnaire was developed to collect information about the participating therapist's psychotherapeutic orientation and training and their experience concerning PTSD treatment, i.e., number of patients suffering from PTSD treated, average number of sessions and length of an average therapeutic session ('Therapeutenfragebogen').

For each conducted psychotherapy, the participating psychotherapist received sheets with tables to document date, number, length and content of sessions, psychotherapeutic techniques utilized per session and additional medical treatment ('Therapiedokumentationsbogen').

Therapists were also asked to fill out a feed back questionnaire concerning the implementation of NET into their clinical practice half a year after the NET training. It consisted of 8 questions focusing on the actual implementation of NET, such as number of patients treated with NET, difficulties with NET on the therapists' as well as the patients' side, additional time and effort spent on NET, personal impressions and suggestions.

10.2.3.2 Patients

The diagnostic interviews were conducted using the Clinician Administered PTSD Scale (CAPS, Blake et al., 1995), the Mini International Neuropsychiological Interview (M.I.N.I., Sheehan et al., 1998), and the Hamilton Depression Scale (HAMD, Hamilton, 1967).

The CAPS was used to make a PTSD diagnosis according to DSM-IV as well as to quantify symptom severity. The CAPS event list was amended with the item "torture", since this type of experience applies to many survivors of organized violence. The HAMD was conducted as interviewer rating to quantify the severity of depressive symptoms. To screen for comorbid disorders the M.I.N.I was conducted.

The vivo-Checklist of Organized Violence was used to receive information on experiences in war, imprisonment and torture. It consists of 44 items which can be divided into 2 subscales "torture experiences" and "combat / war zone experiences".

10.2.4 Procedure

The study can be divided into three phases, with phase 1 for the conducting and documentation of treatment as usual, phase 2 the training in Narrative Exposure Therapy (NET), and phase 3 treatment as usual with NET. Each therapist was asked to conduct three to five therapies in each treatment approach for evaluation.

Phase 1 – treatment as usual: Contact with psychotherapists was initialized by telephone to introduce the study. In case of interest the therapist received a thorough description of the planned study and a questionnaire concerning the psychotherapeutic background and experience in the treatment of PTSD. The therapists introduced the study to patients whom they diagnosed with PTSD. In case of the patient's interest they signed a release from the therapeutical confidentiality and subsequently researchers of the Outpatient Clinic conducted a diagnostic interview using standardized instruments. The first diagnostic interview was supposed to take place within the time of the probatory sessions in the beginning of psychotherapy. In case the patient fulfilled the inclusion criteria such as PTSD according to the DSM-IV and gave written informed consent he / she was included into the study. The therapists were asked to conduct treatment according to their usual procedure and to document the sessions using the documentation sheet. Since treatments in clinical practice differ with regard to number of sessions and overall treatment duration, further diagnostic interviews were conducted 6 and 12 months after the first interview to gather information on symptom severity for each patient after a standardized amount of time. The diagnostic interviews took place either at the Research- and Outpatient Clinic in Konstanz or in the practice rooms of the therapists. Trained interpreters were present, if necessary. Different researchers conducted the assessments of a patient; they were blind for the treatment condition as well as the assessment time point.

Phase 2 – training in Narrative Exposure Therapy: Half a year after the onset of the study the participating therapists were trained in NET. Participation in the training was offered to all therapists who presented patients with PTSD according to DSM-IV during the first phase. The training was planned to take four days, including information on the theoretical background of NET, the treatment procedure as well as role-play to get used to the technique. A further topic was the discussion of ways to integrate NET into the usual treatment procedure.

Phase 3 – implementation of NET into the clinical practice: The third phase followed the same procedure as phase 1. With regard to treatment therapists were asked to conduct NET at some point in the treatment and to note each session on the documentation sheet.

In addition, supervision was offered. Originally, groups of three to four therapists were to receive supervision through a psychologist from the Research and Outpatient Clinic for Refugees every four to six weeks. However, treatments did not start at the same time point. In consequence, two group supervision appointments were offered within nine months following the NET training, one at the Research- and Outpatient Clinic for Refugees in Konstanz and a second at a participating counseling center. Moreover, supervision by telephone was available any time upon request. Researchers of the Outpatient Clinic also held contact with the therapists to inquire about potential difficulties concerning the implementation of NET. Half a year after the NET training the therapists were asked to fill out the feedback questionnaire concerning their first experiences with NET.

10.2.5 Treatment

Treatment as Usual (TU). Therapists were asked to conduct psychotherapy according to their usual routine with regard to duration and frequency of sessions as well as the therapeutic approach. They were furthermore asked to note the latter information in the documentation sheet at least for the year of observation within the trial. The therapeutic approaches, which therapists reported utilizing in treatments with PTSD patients comprise a variety of techniques, as Table 10-3 shows.

Table 10-3. Psychotherapeutic approaches and techniques used by the therapists in the treatment of PTSD

	n	**(%)**
Resource oriented/ stabilizing	14	(100.0)
Problem solving	13	(92.9)
Exposure / trauma focus	9	(64.3)
Relaxation training	8	(57.1)
Creative techniques	7	(50.0)
Cognitive techniques	7	(50.0)
Anxiety and stress management	5	(35.7)
Other techniques	5	(35.7)
EMDR	3	(21.4)
Psychodynamic therapy	2	(14.3)
Systematic desensitization	2	(14.3)

The participants named the following "other techniques": active imagination according to C.G. Jung, screening techniques, observing techniques, testimony, rescripting and reprocessing, narrative exposure according to Perren-Klinger, and hypnotherapy. Some of the latter techniques may be allocated to approaches above. However, the listing complies with the therapists' information.

Treatment as Usual with Narrative Exposure Therapy (TU-NET). Therapists were again asked to conduct PTSD treatment as usual and in addition to try to integrate NET sessions into their usual procedure. The implementation was noted in the documentation sheet. The therapists did not receive any instructions concerning number or length of NET sessions within a treatment. The treatment protocol and aims of NET are explained in chapter 7.1.6.

Table 10-4. Medication of participants in the TU and the TU-NET group at pre, 6- and 12-month evaluation.

	Pre		**6-month**		**1-year**	
	Yes	No	Yes	No	Yes	No
N						
TU	25		20		16	
TU-NET	5		4		4	
Anxiolytics N (%)						
TU	5 (20.0)	20 (80.0)	2 (11.8)*	15 (88.2)	6 (37.5)	9 (56.3)
TU-NET	1 (20.0)	4 (80.0)	1 (25.0)	3 (75.0)	1 (25.0)	3 (75.0)
Neuroleptics N (%)						
TU	3 (12.0)	22 (88.0)	2 (11.8)*	15 (88.2)	1 (6.7)	14 (93.3)
TU-NET	-	5 (100.0)	1 (25.0)	3 (75.0)	1 (25.0)	3 (75.0)
Antidepressants N (%)						
TU	10 (40.0)	15 (60.0)	7 (41.2)*	10 (58.8)	9 (64.3)	5 (35.7)
TU-NET	3 (60.0)	2 (40.0)	2 (50.0)	2 (50.0)	1 (25.0)	3 (75.0)
Analgetics N (%)						
TU	12 (48.0)	13 (52.0)	8 (44.4)*	10 (55.6)	7 (46.7)*	8 (53.3)
TU-NET	2 (40.0)	3 (60.0)	2 (50.0)	2 (50.0)	-	4 (100.0)
Barbiturates N (%)						
TU	4 (16.0)	21 (84.0)	5 (29.4)*	12 (70.6)	5 (33.3)	10 (66.7)
TU-NET	1 (20.0)	4 (80.0)	-	4 (100.0)	-	4 (100.0)
Sum of Medications N (SD)						
TU	1.4 (1.2)		1.3 (1.1)		1.9 (1.2)	
TU-NET	1.4 (1.1)		1.5 (1.7)		0.8 (1.5)	

Note. TU-NET = treatment as ususal with Narrative Exposure Therapy; TU = Treatment as Usual. * = information on participants is missing, valid percentages are presented.

Information on medication was gathered at each time point and is presented in table XY. Drug intake did not change significantly between time points and in addition, the two groups did not differ significantly at any time point in this regard. In consequence, no main influence of medication on the outcome measures is assumed, so that drug intake is not included in the latter data analyses and discussion.

10.2.6 Participation

10.2.6.1 Therapists

Fourteen therapists introduced patients within the 1st phase, and patients of 12 therapists were included in the trial. Of the 14 therapists only 9 participated in the NET training (phase 2). One reason for no participation was the lack of patients with PTSD according to DSM-IV during the 1st phase (n = 2, 14.3%). One therapist (7.1%) quit and two (14.3%) therapists refused to participate in the NET training because of other responsibilities.

Even though the NET training was planned to last four days, the majority of the therapists were about to leave after the third day. The schedule for the fourth day included a detailed discussion concerning the integration of NET into the usual treatment procedure. This discussion was then brought forward to the afternoon of the third training day and the fourth day was cancelled.

Out of 9 NET-trained participants 6 presented patients for PTSD treatment after the training (3rd phase). However, only 3 therapists conducted NET within their usual treatment procedure, which equals 21.4% of therapists at study entry.

10.2.6.2 Patients

Of 30 patients included in this trial, six terminated participation in the study during the first half year and further four refused participation during the second half year of the trial. The 10 dropouts (33%) did not differ from the participants who completed the trial with regard to sociodemographic characteristics and symptom scores at study entry.

Twelve participants (40.0%) terminated treatment prematurely at some point of the trial. Reasons for premature treatment termination were difficulties with the therapist (n = 6; 50.0%), removal (n = 1; 8.3%), severe physical illness (8.3%), and receipt of a residence permit (8.3%). Three patients (25.0%) went into hiding, e.g. because of disapproval of their plea for asylum.

Patients were coded as completing treatment when they and their therapist determined that they had met their PTSD treatment goals or when the treatment outlasted the year of observation.

Table 10-5. Treatment and study dropouts.

Dropout					
		Study			
		No dropout	During month 1 to 6	During month 7 to 12	*n*
Treatment (%)	No d/o	16 (88.9)	-	2 (11.1)	18 (100)
	Yes	4 (33.3)	6 (50.0)	2 (16.7)	12 (100)

The majority of treatment dropouts also quit participation in the study (see Table 10-5). The two participants who did not terminate treatment but participation in the study, felt too distressed because of the diagnostic interviews – according to their therapists.

Treatment dropouts and completers did not differ at any time point with regard to sociodemographic data as well as type and number of traumatic experiences according to CAPS event list and the vivo-Checklist of Organized Violence. With regard to psychiatric symptoms treatment dropouts displayed a higher symptom load than completers at the 6-months evaluation with regard to the CAPS sum score (97.4 vs. 79.3; $t(20)= -2.1$, $p = .046$), intrusions (33.6 vs. 25.2; $t(20) = -2.3$, $p = .03$), and depressive symptoms (32.4 vs. 22.4; $t(20) = -2.2$, $p = .039$).

The treatment dropouts received an average of 10.5 sessions ($SD = 4.3$; range 6 - 19) before they quit. These sessions took place partly already before study entry.

For the TU group 11 (44.0%) treatment dropouts and 9 (36.0%) study dropouts were counted, whereas in the TU-NET group only one person (20.0%) finished therapy preliminary and quit the study because of a removal. Data analyses concerning dropout group differences could not be calculated because of the small sample size.

10.2.7 Statistical Analyses

Statistical analyses were carried out with SPSS Version 11.

Sociodemographic characteristics of the two treatment groups before treatment were compared using independent *t*-tests, and Fisher's Exact tests. Calculations for "pre- vs. post-NET-training" were not conducted because of the high treatment dropout rate post training (n = 6). The remaining sample would consist mainly of TU-NET patients and therefore no results with additional value were expected. Tests used for analyzing differences between treatment or study dropouts and completers were Chi^2- and independent *t*-tests.

Changes concerning the immigration status, co-morbid diagnoses as well as medication between the two groups and between time points were calculated using crosstabulations (Chi^2-, Fisher's Exact and McNemar tests).

With regard to the small TU-NET sample size analyses of treatment effects were carried out using the H-test according to Kruskal and Wallis to test for group differences at the different time points, as it is the nonparametric equivalent to the ANOVA. Because of the small sample size in the TU-NET group, the explanatory power of the results is restricted.

Post hoc tests for the TU group were conducted using mixed linear models with time as a three level within-subjects factor for each outcome measure. The repeated measure ANOVA was calculated using a restricted maximum likelihood procedure and an unstructured covariance type. The corresponding calculations for the TU-NET group were conducted by multiple Wilcoxon tests.

Effect sizes (ES) for the treatment groups were calculated according to Cohen (1988), who defined the ES d as the difference between two means, m_1-m_2, divided by the standard deviation, s, of either group. With regard to unequal ns in the groups, the pooled, weighted standard deviations in the denominator were used as well as Cohen's definition of ES strength, with "small" as $0.2 < d < 0.5$, "medium" as $0.5 < d < 0.8$, and "large as $0.8 < d$.

Chi^2-tests using Bonferroni correction (significance level $\alpha = .004$) were carried out to analyze differences in the use of treatment techniques in the two treatment groups. Furthermore, independent t-tests between the treatment groups were computed for number and duration of treatment sessions, and Spearman correlations were carried out for both treatment groups to tests for associations between symptom changes and number and duration of treatment.

10.3 Results

10.3.1 Psychiatric Symptoms

Table 10-6 and Table 10-7 present means, standard deviations and effect sizes of the outcome measures for both treatment groups (TU, TU-NET) at the three time points (pre, 6-months, 12-months) for the 'intent-to-treat' as well as for the 'treatment completer' sample.

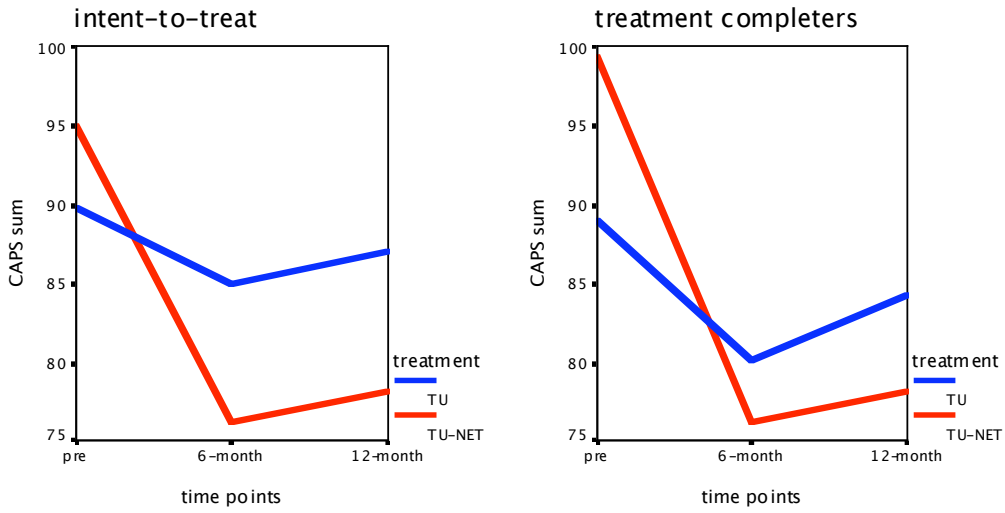

Figure 10-1. CAPS sum scores for the intent-to-treat and the treatment completer samples across time points.

10.3.1.1 CAPS

The calculations for intent-to-treat as well as for the completer samples revealed that the two groups (TU vs. TU-NET) did not differ significantly across the time points with regard to CAPS and HAMD sum scores as well as CAPS subscale scores. Yet, Figure 10-1 shows different trends concerning the symptom development in the two treatment groups, so that additional post hoc within treatment groups analyses were conducted.

The TU intent-to-treat sample (n = 25) did not change significantly on any of the outcome measures. For the TU completers (n = 14) a significant effect between pre- and 6month evaluation was found for the CAPS sum score (SE = 5.4, df = 12.9, t = 1.7, p = .05). Furthermore, a main effect of time with regard to intrusions was found (F(2,12) = 5.4, p = .022), with a significant decrease of intrusive symptoms between pre- and 6-month (SE = 1.3, df = 12.7, t = 3.3, p = .003) as well as pre- and 12-month evaluation (SE = 2.1, df = 11.9, t = 2.0, p = .03). No

further effects of time and between certain evaluations, respectively, were found with regard to posttraumatic and depressive symptoms.

Table 10-6. Means, standard deviations and effect sizes of the outcome variables by intent-to-treat treatment groups

	pre		6-month		12-month		ES pre-6m	ES pre-12m
N								
TU	25		20		16			
TU-NET	5		4		4			
Clinician Administered PTSD Scale (CAPS)								
TU	89.8	(15.4)	85.0	(17.2)	87.1	(20.9)	0.3	0.2
TU-NET	95.0	(14.0)	76.3	(23.3)	78.3	(10.2)	1.0	1.4
CAPS intrusions								
TU	29.5	(6.2)	26.9	(7.0)	27.8	(7.7)	0.4	0.2
TU-NET	32.6	(4.0)	28.0	(11.7)	26.0	(6.7)	0.5	1.2
CAPS avoidance								
TU	33.8	(7.8)	32.1	(8.9)	31.9	(8.2)	0.2	0.2
TU-NET	34.4	(6.5)	25.3	(8.4)	30.3	(5.0)	1.2	0.7
CAPS arousal								
TU	26.6	(5.4)	26.0	(5.4)	27.4	(7.7)	0.1	-0.1
TU-NET	28.0	(5.9)	23.0	(3.9)	22.0	(2.2)	1.0	1.4
Hamilton Depression Scale (HAMD)								
TU	23.8	(6.8)	25.2	(9.7)	23.4	(8.0)	-0.2	0.1
TU-NET	20.8	(7.0)	22.5	(10.7)	19.3	(7.8)	-0.2	0.2

Note. TU = treatment as usual; TU-NET = treatment as usual with Narrative Exposure Therapy; ES = effect size.

Post hoc analyses revealed a significant decrease in the CAPS sum score for the intent-to-treat TU-NET (n = 5) group between pre- and 12-month interview (Z = -1.8; p = .034). The same was found with regard to intrusions (Z = -1.1; p = .05). The score for avoidance symptoms decreased significantly between pre- and 6-month evaluation (Z = -1.8; p = .034) as well as between pre- and 12-month evaluation (Z = -1.8; p = .033). The same pattern was found for the group of treatment completers (n = 4).

With regard to clinical significance only one person in each group did not fulfill the PTSD criteria according to DSM-IV at the 6-month evaluation. At 12-month all participants that were interviewed still met the criteria.

Table 10-7. Means, standard deviations and effect sizes of the outcome variables by completer treatment groups

	pre		6-month		12-month		ES pre-6m	ES pre-12m
n								
TU	14		13		12			
TU-NET	4		4		4			
Clinician Administered PTSD Scale (CAPS)								
TU	89.1	(12.9)	80.2	(17.1)	84.3	(20.8)	0.6	0.3
TU-NET	99.5	(11.3)	76.3	(23.3)	78.3	(10.2)	1.3	2.0
CAPS intrusions								
TU	29.3	(5.2)	24.4	(6.4)	26.3	(7.6)	0.8	0.5
TU-NET	34.0	(2.9)	28.0	(11.7)	26.0	(6.7)	0.7	1.6
CAPS avoidance								
TU	32.4	(7.6)	30.5	(8.9)	30.5	(7.6)	0.2	0.3
TU-NET	36.8	(4.5)	25.3	(8.4)	30.3	(5.0)	2.7	1.4
CAPS arousal								
TU	27.4	(4.9)	25.3	(5.8)	27.5	(8.4)	0.4	-0.01
TU-NET	28.8	(4.9)	23.0	(3.9)	22.0	(2.2)	1.3	1.8
Hamilton Depression Scale (HAMD)								
TU	23.8	(6.1)	22.4	(8.9)	23.0	(7.9)	0.2	0.1
TU-NET	23.8	(2.6)	22.5	(10.7)	19.3	(7.8)	0.2	0.8

Note. TU = treatment as usual; TU-NET = treatment as usual with Narrative Exposure Therapy; ES = effect size.

10.3.1.2 HAMD

The calculations with regard to depressive symptoms did not reveal any significant time by treatment interactions. Post hoc analyses within the TU and the TU-NET groups (intent-to-treat and completer), respectively, supported this finding with no significant changes between the three time points.

10.3.1.3 M.I.N.I.

Information on co-morbid disorders and suicidal tendency is presented for the treatment groups as well as the time points in Table 10-8. Only disorders, for which criteria according to DSM-IV were fulfilled at least once, are presented. The two groups did not differ concerning any co-morbid disorders. Further calculations did not reveal significant changes between time points, as calculated for each group. Both treatment groups displayed a high number of co-morbid disorders across the year of observation. In the TU group 88% of participants were diagnosed with co-morbid disorders at pre treatment, 75% at the 6-month and 93.7% at the 12-month evaluation. For the TU-NET group co-morbid disorders were found in 80%, 50% and 75% of the participants at the different time points.

Table 10-8. Suicidality and co-morbid disorders in the treatment groups according to the MINI screening.

	pre		**6-month**		**12-month**	
	TU N = 25 (%)	TU-NET N = 5 (%)	TU N = 20 (%)	TU-NET N = 4 (%)	TU N = 16 (%)	TU-NET N = 4 (%)
Suicidal tendency	18 (72.0)	2 (40.0)	13 (65.0)	-	9 (56.3)	1 (25.0)
Major Depression	15 (60.0)	4 (80.0)	12 (60.0)	1 (20.0)	8 (50.0)	2 (50.0)
Dysthymia	4 (16.0)	-	2 (10.0)	-	5 (31.3)	2 (50.0)
Panic Disorder w/o Agoraphobia	1 (3.8)	-	1 (5.0)	-	3 (18.8)	1 (25.0)
Panic Disorder with Agoraphobia	2 (7.7)	-	2 (10.0)	1 (25.0)	2 (12.5)	-
Agoraphobia w/o PD	1 (3.8)	-	3 (15.0)	-	-	-
Social Anxiety Disorder	1 (3.8)	-	1 (5.0)	1 (25.0)	2 (12.5)	-
Obsessive Compulsive Disorder	-	-	1 (5.0)	1 (5.0)	1 (6.3)	-
Substance Abuse	1 (3.8)	-	-	-	-	-
Bulimia Nervosa	-	-	-	-	-	1 (20.0)
Generalized Anxiety Disorder	1 (3.8)	-	1 (3.8)	-	-	-
Co-morbid Disorders m (SD)	2.3 (1.3)	2.2 (1.5)	2.4 (1.6)	1.3 (1.5)	2.4 (1.4)	2.0 (0.8)

Note. TU = treatment as usual; TU-NET = treatment as usual with Narrative Exposure Therapy

Suicidal tendency is not accounted for as a disorder of it's own and therefore reported separately in Table 10-8. The two treatment groups differed with regard to suicidal tendency only at the 6-month evaluation time point, with the TU group participants reporting more suicidal ideation and plans than the TU-NET group (p = .007).

10.3.2 Treatment Procedures

Treatment documentations were available for 20 patients, with 15 sheets for TU and 5 sheets for TU-NET. Percentages for treatment techniques used in the sessions during TU versus TU-NET are presented in Figure 10-2. Data analyses revealed significant differences concerning the use of therapeutic techniques in the two treatment conditions: in treatment as usual resource orientation ($\chi^2(1) = 18.9$; $p = .000$) and problem solving ($\chi^2(1) = 36.8$; $p = .000$) are significantly more often part of the sessions than in the TU-NET group. On the other hand, trauma focus ($\chi^2(1) = 10.2$; $p = .001$) and psycho-education ($\chi^2(1) = 33.3$; $p = .000$) are more often practiced in the TU-NET group. Trauma focus in the later group was noted in case of exposure, which was not conducted according to the NET manual.

Most sessions included 2 to 3 different techniques. The notes on the documentation sheet reveal that the content of sessions was strongly related to actual circumstances in a patient's life, such as marital problems, worries about a child, asylum application procedures, but also to symptoms such as nightmares or a long-lasting flashbacks. Treatments including NET were built up in a more structured way, to the effect that one "problem" or symptom group received attention for some sessions in a row followed by a sequence of sessions focusing on another topic. Only sometimes the sequence was interrupted because of a current occasion.

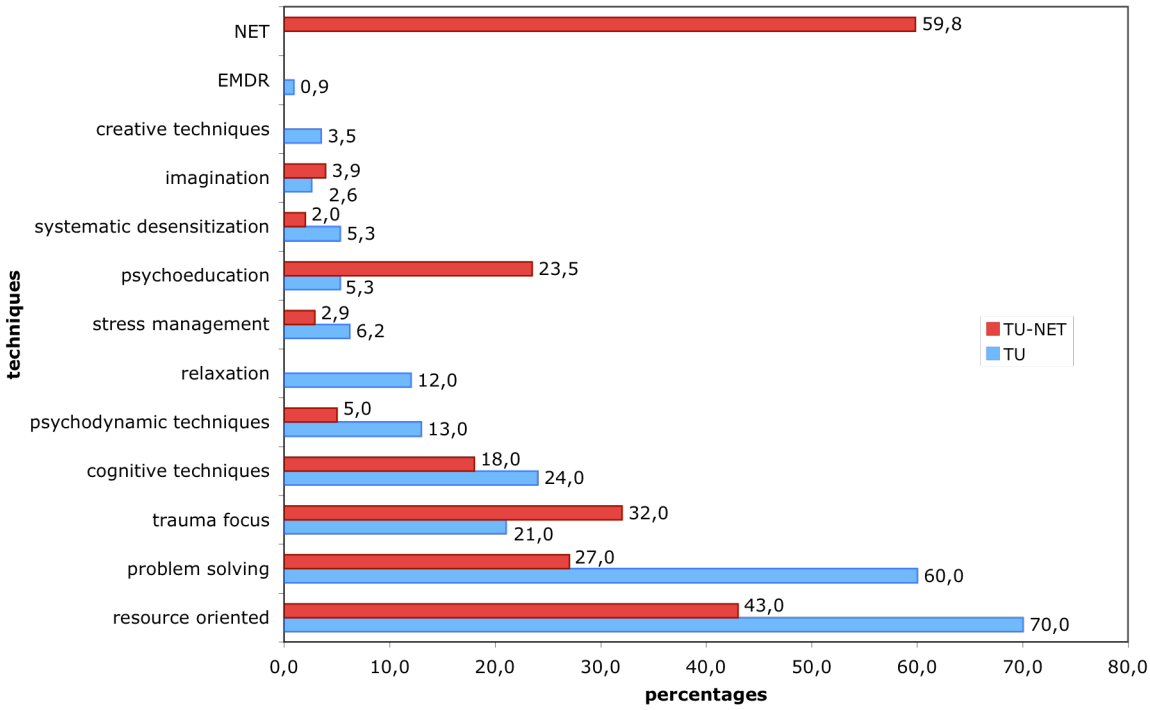

Figure 10-2. Use of therapeutic techniques during treatment as usual (TU) and treatment as usual with Narrative Exposure Therapy (TU-NET).

Treatment duration equaled an average time of 68.3 minutes (*SD* = 27.3) per session, ranging from 20 minutes to 180 minutes per session. TU participants received an average of 69 minutes (median = 50 min) therapy per session, TU-NET participants 66 minutes (median = 60 min; non-significant differences). The majority of treatment sessions (52.8%) lasted 50 minutes, 14.9% lasted 60 minutes and 12.2% lasted 120 minutes. Information on number of sessions and minutes per session is displayed in Table 10-9 for each time point, the two treatment groups as well as the whole sample. The two groups did not differ significantly with regard to number and length of treatment sessions at any time point. However, the overall number of treatment sessions within the year of observation ranged from 4 to 37, indicating a high variance in frequency and intensity of treatments.

Table 10-9. Means and standard deviations for number and length of treatment sessions of treatment completers in both groups.

	Number of sessions (SD)				**Length of sessions in min (SD)**			
	Pre treatment	1st 6 months	2nd 6 months	∑ 1 year	Pre treatment	1st 6 months	2nd 6 months	∑ 1 year
TU	5 (5)	8 (5)	6 (4)	15 (9)	261 (224)	587 (302)	421 (242)	1164 (549)
TU-NET	3 (1)	13 (6)	7 (2)	20 (7)	208 (85)	808 (392)	445 (104)	1460 (432)
∑	4 (5)	9 (6)	7 (3)	17 (9)	247 (194)	646 (329)	428 (210)	1238 (525)

Note. TU = treatment as usual; TU-NET = treatment as usual implementing NET.

10.3.3 Feedback concerning the use and dissemination of Narrative Exposure Therapy

Half a year after the NET training a first group supervision appointment was offered as discussed with the participants. However, only one therapist conducted NET as part of his treatment at that time. This appointment was attended by 3 of the therapists. Reasons named for the absence of the other therapists were lack of patients treated with NET, other responsibilities, and too long travel time to the Outpatient Clinic in Konstanz. A second supervision appointment was planned at one of the participating counseling centers to reduce the travel time for at least half of the therapists. All therapists were invited regardless of a use of NET. However, only one therapist would have attended this meeting. In consequence the group supervision was cancelled and the one therapist received thorough supervision by telephone. Throughout the trial all therapists were offered supervision by telephone, but only two thera-

pists made use of this option, once. In addition, regular contacts with the therapists, e.g. for the organization of evaluations, were also used to offer supervision and to gather information on experiences concerning NET. However, except for the two therapists above, the participants felt confident about using NET or not did not utilize NET for certain reasons.

The feedback questionnaire was filled out by 7 of the 9 NET training attendees. Four of them noted conducting NET as part of their treatment procedure – also in the treatment of patients, who were not part of the study. At the time of the evaluation NET has been used in 2 to 10 patients outside of the trial, in which traumatic experiences were the most prominent reason for suffering and for needing treatment. NET sessions predominantly lasted 90 minutes, ranging from 50 to 140 minutes. Also time for session preparation or postprocessing varied to a great extent, ranging from 10 to 60 minutes. The majority of therapists claimed to need about 25 to 30 minutes for preparation and postprocessing of a NET session. Those who conducted NET found a great acceptance of this procedure in the patients and found it helpful for providing structure in the treatment. Two therapists reported the refusal of a client after the introduction of the NET protocol. One patient claimed no need for therapy, for the other patient the therapist assumed avoidance as the reason.

Difficulties conducting NET named were fears connected with the asylum status (such as letters and other bureaucracy, 2 times), avoidant behavior in the client (2 times) as well as in the therapist (2 times). Other stressful aspects in a patient's life, such as marital problems, would also interfere with the implementation of the NET protocol. Therapists also stated difficulties following manual guidelines at the expense of attention to the therapeutic alliance (e.g. remaining responsive to what may be the patient's changing emotional needs).

All therapists noted that the NET protocol is time-consuming especially with regard to the re-writing of the narration between the sessions. Narration writing could not be brought to account at the health insurance. In addition, one therapist hesitated to conduct narrative exposure within the small time frame of a session (usually 50 minutes) and lack of the option for an open-ended session because of following patients' appointments. Two therapists felt that the NET procedure was too intense and detailed with regard to the traumatic experiences, which would be too distressing for both, the patient as well as the therapist. Two other therapists would not utilize NET because of the insecure living situation of the patients, who were mainly asylum seekers. One stated doubts with regard to the use of exposure for any patient without a phase of stabilization beforehand. Only 10 to 40% of new patients, who were primarily suffering from PTSD, were offered NET as part of the treatment. Besides the time-intensive protocol

of NET, therapists did not offer NET because of "fast results using EMDR" as well as because of dissociative and psychotic symptoms. Further reasons for therapists' hesitation were "lack of therapeutic framework" (mangelnde Therapiefundierung), and need of more training and supervision on site. The therapists reported no additional difficulties with regard to assumption of the costs through health insurances or social welfare because of e.g., double sessions as part of NET. Despite these objections concerning the use of NET all therapists reported further-recommending this approach.

10.4 Discussion

10.4.1 Trial on TU vs. TU-NET

The naturalistic trial comparing treatment as usual (TU) with a combination of treatment as usual with Narrative Exposure Therapy (TU-NET) conducted by community therapists showed no significant difference between the two treatment conditions in reducing PTSD and depression. These results were obtained in both intent-to-treat and completer samples. The treatment groups were comparable with regard to number of sessions and length of treatment sessions, since statistical data analyses did not reveal any significant differences. However, posthoc analyses as well as effect sizes indicate superior effects of TU-NET to TU alone, with regard to overall PTSD symptoms, but also concerning the subscores. However, because of the small sample size in the TU-NET group the explanatory power of the results is limited. Since therapists of the TU-NET group also conducted treatments in the TU group, therapists' effects can be ruled out. Spontaneous recovery in the TU-NET group is unlikely since participants in the TU group did not improve in the same way.

Despite the improvement, particularly in the TU-NET participants, the symptom scores remained high, and only one patient in each treatment group did not fulfill the DSM-IV criteria for PTSD. This circumstance may – among other factors – be attributed to the fact, that the vast majority of participants were asylum seekers and refugees suffering from multiple traumas deriving from organized violence. Accordingly, the CAPS sum score at study entry was very high, ranging between 90 and 100, whereas randomized controlled trials (RCTs) on survivors of child sexual abuse or other civilian traumas report study entry scores of about 65 to 78 (Blanchard *et al.*, 2004; Bryant et al., 2003; Resick et al., 2003). In addition, throughout the trial 75% to 80% of the participants held a preliminary residency status, which for most refugees implies the permanent threat of deportation to the country of origin and therefore hampers

recovery (see Davis & Davis, 2006). The sheer anticipation of not feeling secure in everyday life has been found to be a risk-factor for long-term mental illness even in resettled refugees (Sundquist & Johansson, 1996).

The sizes of the treatment effects on posttraumatic symptoms at 6-month and 12-month evaluation display large ESs for the TU-NET group in contrast to small ESs for the TU group, thereby indicating a clinically significant change for PTSD symptoms that did not occur in the TU group. For the purpose of standardization, evaluations took place 6-month and 12-month into treatment, not after regular treatment termination, since this would have caused a great variance with regard to pre- to post-treatment time. Yet, effect sizes of both treatment groups exceed the effects size found in a naturalistic trial on treatment for traumatized refugees in Berlin, Germany (-0.1; Birck, 2004). The later as well as a Danish multidisciplinary treatment trial on traumatized refugees (Carlsson et al., 2005) support the finding of no symptom change after unstructured psychotherapy in counseling centers for refugees, at least not within a time span of 9 to 10 months of treatment. Since no further treatment trials in natural settings were available with enough statistical information the results of the present trial are being compared with RCTs, which conducted follow-ups in comparable time spans using the CAPS. Again the explanatory power is limited since treatments in RCTs have been terminated at follow-ups and have been conducted with the aim to reduce symptoms within this time span; this cannot necessarily be assumed for treatments in a community setting and in private practice, respectively, which are conducted in a rather open-ended setting and focus long-term changes. Yet, comparing the ES in the present study with RCTs, the TU group displayed a comparable ES at 6-month evaluation (intent-to-treat 0.3, completer 0.6) as e.g., the supportive counseling group at 6-month follow up (intent-to-treat 0.2, completer 0.6) in a RCT by Bryant and colleagues (2003). A randomized controlled comparison by Blanchard and colleagues (2004) found an ES of 1.1 twelve months after supportive counseling in motor vehicle accident survivors. The 12-month evaluation revealed substantially lower ES in the TU group (intent-to-treat 0.2, completer 0.3).

Effect sizes of the TU-NET group at 6-month evaluation (intent-to-treat 1.0, completer 1.3) are comparable with those of treatment groups that received imaginal exposure (intent-to-treat 1.1, completer 1.5, Bryant et al., 2003; completer 0.9, Tarrier et al., 1999a). On the other hand, the trial by Paunovic and Ost (2001), in which exposure treatment was conducted with refugees holding a lasting residence permit, found an effect size of 2.6 at 6-month follow-up.

The ES for TU-NET at 12-month evaluation (intent-to-treat 1.4, completer 2.0) is comparable with the ES of exposure treatment in child sexual abuse survivors (completer 2.1, Resick et al., 2003), but superior to imaginal exposure in civil trauma survivors (completer 0.9, Tarrier et al., 1999a). These findings indicate, that – despite ongoing therapies – treatment in the community setting and in private practice may result in comparable clinical significant effects as RCTs. The finding of superior ESs of TU-NET to TU is reflected in RCTs who also report higher ESs for approaches including exposure treatment in comparison with present-focused supportive counseling.

Data analyses did not reveal significant changes with regard to depression and other co-morbid disorders. In support of findings in comparable samples (e.g., Van Ommeren et al., 2001a) percentages of co-morbid disorders were very high, ranging from 80% to 88% at study entry. At 6-month evaluation fewer diagnoses according to DSM-IV were fulfilled, but diagnoses increased at 12-month evaluations again. This finding shows that treatments did not affect co-morbid symptoms to an extent, which would alter a diagnosis. The interim reduction in co-morbid disorders may be attributed to unspecific treatment effects, which often occur during the first phase of treatment. The lack of significant change in co-morbid disorders in the TU-NET group supports previous findings (e.g., Neuner et al., 2004b) and furthermore indicates the specificity of NET with regard to the treatment of PTSD. However, having the same pattern for the diagnosis of PTSD in mind, these results do not allow conclusions as to whether a change in symptom severity took place or not. In accordance with this, measures for depressive symptoms did not reveal a significant change; yet, the large ES for the TU-NET completer group at 12-month evaluation indicates a clinically significant decrease in depressive symptoms, which did not take place in the TU group. A reduction of depressive symptoms may be associated with a decrease in posttraumatic symptoms. For example, perception of decreased control, which has been implicated in the etiology of PTSD (Ehlers & Clark, 2000), has also been prominent in theories of depression (Buchanan & Seligman, 1995). It is possible that the structured trauma-focused approach of NET led to overcoming avoidance and reduced intrusions, which in turn increased the perceived self-efficacy in patients. As a consequence, depressive symptoms decreased as well.

Suicidal tendency with regard to ideation and plans was significantly lower in the TU-NET group in comparison with the TU group at 6-month evaluation and did not rise significantly after one year. Accordingly, exposure therapy did not lead to decompensation as would

be expected according to theoretical orientations that claim a long period of stabilization before confronting a patient with the traumatic experiences to avoid decompensation and raised suicidality along with it (Reddemann & Sachsse, 2000). A decrease in suicidal tendency took place in both treatment groups and may be due to unspecific treatment effects, since dropouts did not report high or higher rates of suicidality. However, the significantly lower suicidal tendency in the TU-NET group may also be attributed to effective treatment of posttraumatic symptoms leading to enhanced self-efficacy in patients with regard to intrusions and less need of avoidance of memories concerning traumatic experiences. Changes in emotion regulation and fear of losing affective control most strongly predicted changes in PTSD symptoms in another treatment study on military-related PTSD (Price et al., 2006).

The overall dropout rate of 40.0% and of 44.0% in TU, respectively, is higher than the average rate of 27% reported in randomized controlled trials of CBT for PTSD (Hembree et al., 2003). However, studies on clinical-practice dropout rates of individuals with PTSD or traumatic event survivors found rates of 41% (Fisher, Winne, & Ley, 1993) and 46% (Burstein, 1986). Patients in the latter trial received medication and supportive counseling. Zayfert and colleagues (2005) assessed the rate of completion of CBT in a clinical setting using a "clinical definition" of completion (i.e., patients remain in treatment until the desired outcome is achieved). The treatment consisted of recommended components of CBT for PTSD according to Foa and Rothbaum (1998), including in vivo and imaginal exposure therapy. The authors found a treatment completion rate of only 28%, which they associate with factors, such as the definition of treatment completion, high co-morbidity rates in the patients and high ambivalence of patients about treatment for PTSD. Avoidance and depression were found as predictors of completion. Dropouts in the TU group at hand differed from the completers with regard to general PTSD, intrusive and depressive symptom load at 6-month evaluation. As stated above, depressive symptoms are associated with low perceived control, which may also be true for intrusive symptoms. An unstructured supportive therapy, which does not tackle these difficulties, does not lead to a perception of enhanced control, therefore leading to dropout. However, we did not control for other possible factors such as time between trauma and intervention, which Burstein (1986) found to be positively associated with dropout rates. An epidemiological study found that patients, who believed that mental health treatments are not effective, were more likely to drop out of treatment (Edlund, Wang, Berglund, Katz, Lin, & Kessler, 2002). The latter circumstance indicates the importance of psycho-education about mental

health treatment and the psychiatric condition, which was part of TU only in 5.3% of the sessions.

With regard to the TU-NET group the sample was too small for data analyses, and the one dropout moved because of occupational causes. A greater TU-NET sample is needed to allow conclusions.

10.4.2 Treatment as Usual in the Clinical Practice

Therapists in the clinical practice introduced 48 patients whom they diagnosed with PTSD as principal diagnosis. However, 33% of these did not fulfill the diagnostic criteria according to DSM-IV, which might be due to the use of ICD-10 criteria in the German health care system according to which higher PTSD prevalence rates have been found (e.g., Rosenman, 2002). For example, except for two patients these persons did not fulfill the DSM-IV criteria for avoidance. Possibly, they did not experience as many or severe PTSD symptoms as required according to DSM-IV. On the other hand, the patients may have underreported their symptoms. As Malekzai and colleagues (1996) found, refugees sometimes do not consider their symptoms extraordinary within their community and report more pressing priorities than their own health.

In accordance with the latter and our hypothesis, treatment as usual in the clinical practice mainly consisted of present-focused treatment approaches, such as problem solving and resource orientation. This result supports findings of studies on the therapeutic practice in the treatment of PTSD in the USA (C. B. Becker et al., 2004; Rosen et al., 2004). Therapists moreover utilized a great variety of techniques of different therapeutic orientations within one treatment; a finding that has also been reported in an earlier study concerning the psychotherapeutic practice in Germany (Brockmann, Schlüter, Brodbeck, & Eckert, 2002) as well as for treatment for substance abusers in the USA (Ball *et al.*, 2002). In accordance with our findings, also Sachsse, Vogel and Leichsenring (2006) did not find significant changes with regard to symptom reduction in PTSD patients receiving outpatient treatment as usual for about 7.5 months. This further supports the conclusion that an unstructured eclectic approach does not lead to symptom reduction in patients suffering from PTSD – at least not within the first year of treatment.

Comparing the therapeutic techniques with the session contents it appears that the therapists conducted TU attending a patient's current needs in the sessions instead of focusing on persistent symptoms. Accordingly, the pattern of topics and issues was changing between sessions, contrary to TU-NET, where sequences of sessions for certain topics were found.

Trauma focus was used in 21% of the treatment sessions in the TU group, which is again comparable with findings in Veterans Affairs (VA) settings, where 20% of veterans with PTSD received exposure treatment, and this approach was used as primary treatment in only 1% of the cases (Foy, Kagan, McDermott, Leskin, Sipprelle, & Paz, 1996). Another survey on VA practice patterns in the treatment of PTSD found that between 15% and 22% of so called PTSD specialists discussed traumatic experiences in their treatments (Rosen et al., 2004). The small proportion of trauma focus in the sessions in the present trial is remarkable since 64.3% of the participating therapists reported at study entry to frequently use exposure in the treatment of PTSD. However, despite the majority of therapists (85.7%) reported working primarily with asylum seekers, which implies a high rate of patients suffering from PTSD, only three acquainted to have treated up to 500 patients with PTSD thereby indicating a high level of experience in treating this condition. Further five reported between 10 to 30 patients with PTSD indicating a moderate level of experience. Carolyn B. Becker and colleagues (2004) found that therapists who have treated between 26-50 patients with PTSD endorsed significantly fewer contraindications for exposure as introduced by the authors than therapists with more or less experience. In addition, limited training in the use of imaginal exposure (IE), preference for individualized treatment over manualized therapy and a concern that the patient would decompensate were named as limiting factors in the utilization of IE. As complications resulting from the use of IE especially increase in arousal, re-experiencing symptoms and suicidality were anticipated. Decompensation and increased suicidality were associated with the belief of exacerbated self-injury and desire to dropout in patients. Unfortunately, reasons for or against the utilization of trauma focus were not collected with regard to TU alone in the present sample. However, the latter factors were frequently named in contacts with therapists in the course of the study and during the NET training, when discussing the utilization of NET (see 10.4.3). Therapists indicated abstaining from NET or other trauma-focused procedures for the sake of less likely premature treatment termination and the possibility of monitoring suicidality as well as coping strategies with regard to the asylum application procedure in patients.

Only a small number of treatments were conducted with interpreters, mainly as consequence of lack of reimbursement, but also since therapists had the experience of "good therapeutic work" even without interpreters. However, trauma-focused approaches go into details for which the patients' language skills may not be sufficient and interpreters are needed. Since interpreters are not reimbursed by health insurances and other funding is only seldom available, this circumstance may also influence the choice of therapeutic techniques and accordingly lead to abstaining from exposure techniques.

Looking at the number of treatment sessions, the analyses revealed that patients received sessions on average every other or every third week during the year of observation despite recommendations for the clinical practice of two to four sessions a month to reach sustained efficacy (Hollon, Thase, & Markowitz, 2002). However, numbers of sessions as well as session intervals were found to differ to a great extent between treatments, ranging from 4 to 37 sessions within one year. The Stuttgart TRANS-OP study (Kordy, 2004) on psychotherapy in the private practice across psychiatric indications found that depending on the theoretical orientation of the therapists treatments lasted on average between 13 months (cognitive-behavioral), 16 months (psychodynamic) and 18 months (psychoanalytic), with an average amount of 30 sessions (cognitive-behavioral), 40 sessions (psychodynamic) and 83 sessions (psychoanalytic). Short cognitive-behavioral treatments were terminated on average after 26 sessions within 9 months. These findings were gathered from n = 413 therapists across Germany. Locherbach and Weber (2000) report higher average rates based on information of 1.521 psychotherapists in Germany, with 43.7 (CBT), 69.9 (psychodynamic) and 159.9 (psychoanalysis) sessions until treatment termination. In comparison with these findings, patients in the current study received less frequent treatment sessions within the year of observation than could be expected according to the two studies above.

Kordy (2004) also discusses that a higher frequency of treatment sessions may lead to a faster reduction of psychological impairment. It could accordingly be that a higher therapy session frequency in the TU group may have lead to an enhanced treatment efficacy. The TU-NET group received not significantly but on average more sessions within the year of observation. Maybe the combination of session frequency with the implementation of NET can account for the greater ESs in this group.

Most patients in clinical practice present with multiple problems other than a single Axis I disorder, which clinicians of all theoretical orientations recognize and treat. These co-occurring conditions have a substantial impact on treatment length in everyday practice (see Kordy, 2004; Morrison, Bradley, & Westen, 2003; Roth & Fonagy, 1996). Also aspects such as social functioning, marital problems, and immigration status as in the present trial are taken into consideration during everyday treatment. Unfortunately, the diagnostic interviews did not gather information on co-occurring aspects such as overall quality of life or social functioning and therefore may not display the level on which treatments in the private practice took effect besides symptom levels. With regard to co-morbid disorders no changes were found.

Treatments in the clinical practice are more intensive and extensive than manual-based treatments studied in efficacy trials and typically take longer than RCTs with usually less than 20 sessions (Brockmann et al., 2002; Morrison et al., 2003). As Morrison and colleagues (2003) report, most treatments considered successful by clinicians take at least 6 months and upwards of 1-2 years. The understanding of treatment lasting up to more than a year may also be true in the present study, since most treatments were not terminated within the year of observation. Treatments, which were terminated during this time were finished prematurely and not for the reason of achieved treatment goals.

However, therapists in clinical practice seem to try to tackle the multiple conditions a patient presents in psychotherapy one at a time, which in the TU group did not lead to clinically significant ESs with regard to psychiatric symptom severity within one year of treatment. Contrariwise, a focus on distinct symptoms or disorder for a defined amount of time, as in the implementation of NET into TU, was found to allow a fast and large ES with regard to posttraumatic symptoms. Consequently, further evaluations (e.g. at posttreatment, 6-months to 2-year follow-ups) would be needed to allow further insight into the clinical practice and effectiveness of treatment for survivors of organized violence.

10.4.3 Dissemination of NET

This is the first trial on dissemination of NET to psychotherapists working in community centers and private practices in Germany. The findings allow several conclusions, despite the small sample sizes of therapists and patients:

1. The NET procedure can successfully be disseminated to therapists in the clinical practice: NET training was terminated after three days as agreed between therapists and NET trainers, since the procedure itself was well understood and further-role play was not considered necessary/needed.
2. NET can be integrated into treatment sessions in everyday PTSD treatment: NET sessions were not significantly longer in minutes than TU sessions. However, the median for TU-NET indicates longer sessions, and therapists noted 90 minutes as average session length for the NET procedure. They also noted that “double-sessions”, lasting 90 to 100 minutes, were no problem with regard to reimbursement through health insurance. The procedure was seen as contributing a helpful structure to the treatment routine.

3. NET is well accepted by patients to whom this procedure is offered: only two patients refused NET as part of their treatment. One of them moreover decided he did not need psychotherapy at all. Unfortunately, the feedback questionnaires did not provide valid information concerning the number of PTSD patients beginning treatment, the proportion of those to whom NET was offered and the proportion of patients who declined NET, since therapists only gave estimates. Former evaluations of NET also report only single patients who refuse NET after psycho-education and information on the procedure, if at all (e.g., Neuner et al., 2004b).
4. NET enhances effects of treatment as usual in the clinical practice with regard to posttraumatic symptoms, as discussed above. The implementation of NET enhanced the proportion of psycho-education and trauma-focus in the treatment sessions, so that TU-NET rather matches treatment guidelines for PTSD than TU alone.

These findings support results by Foa and colleagues (2005), who found community-based masters level clinicians to easily acquire the procedure of prolonged exposure according to the authors' manual. They moreover achieved the same outcome with regard to posttraumatic symptoms and a better outcome with regard to depression and social functioning at follow-up. Accordingly, Becker et al.'s (2004) finding that many community clinicians do not use exposure therapy for PTSD because they lack appropriate training suggests a need to devise effective and efficient training programs to educate clinicians.

Yet, only few therapists actually conducted NET as part of their treatment procedure for PTSD. Interestingly, also Rosen and colleagues (2004) found that less than 10% of PTSD specialists used manuals in their treatments for PTSD. Most therapists in the present study named the time-costly procedure of narration writing as reason for abstaining, since this task is not reimbursed by health insurance and as self-employed persons they cannot afford to work for free. Even therapists in counseling centers were not employed and relied on reimbursement by health insurances – contrary to therapists in research settings. Moreover, clinicians working primarily with asylum seekers appeared time-pressured to take care of a large number of patients with emotional and social needs as well as legal issues. In some counseling centers and practices therapists already were multitasking and therefore somewhat resistant to make time for a new treatment procedure in practice. Therapists, who actually conducted NET, were found to be more flexible in the implementation of the manual, e.g., by only writing down one or few major events as narration, not the whole biography. Narration writing can be very time-

costly, which is why in the Outpatient Clinic narrations are often written by trainees or in case of enough language proficiency as well as reading and writing skills by the patient him-/herself. But not only outside the sessions the narration was seen as difficult factor, also continuously taking notes was seen as distracting from the client-therapist-alliance. The latter has also been found in a trial by Wilson (1997) and has been reported as reason for abstaining from manual-based treatments by Addis and Krasnow (2000).

The scarce use of supervision may indicate different aspects. On the one hand, therapists could actually feel confident with regard to the procedure of NET so that they did not ask for supervision. Lay therapists have also been successfully been trained in this procedure (Catani et al., 2005; Onyut, 2006), which was actually developed to be easily learned (Schauer et al., 2005). On the other hand, it might also apply that the actual use of NET raises more complex questions than therapists felt they wanted to discuss in supervision with researchers.

Hesitation concerning the use of NET may also be associated with a psychodynamic tradition in Germany, according to which "retraumatization" might occur when talking about traumatic experiences in details, especially when confrontation is conducted without a prior period of extensive stabilization (Fischer & Nathan, 2002; Reddemann & Sachsse, 2000) In addition, therapists may experience high levels of distress hearing patients' dreadful experiences (Marks et al., 1998), which has been associated with high rates of burnout and vicarious traumatization (Gurris, 2005). Patients in turn suffering from PTSD often fear to be overwhelmed by their emotions connected with these experiences and to suffer more when facing them (Price et al., 2006). As a consequence avoidance behavior occurs to the extent of emotional numbing on the patients' side and in form of avoidance of utilizing confrontative techniques on the therapists' side.

Further dissemination of NET should include a stepwise approach, in which therapists get used to the utilization of NET and can have the experience of handling the emotions on both the patients' and the therapists' side as well as of the added value of this approach in treatments. This could be done either by treatments, in which therapists can first be co-therapists of experienced NET therapists, and take over at some point; the implementation could also take place through closer supervision, e.g. by intense preparation and postprocessing of NET sessions by the therapist and the NET supervisor, with the later introducing the therapist to strategies of handling the emotions while following the manual-based treatment procedure. Also, NET training itself might put an extra focus on the aspect of strong emotions within NET treatments, the question of decompensation and suicidality as well as on strategies for thera-

pists to protect themselves, so that the latter can learn to have confidence in the unfamiliar approach.

10.4.4 Conclusions & Outlook

Dissemination and implementation of Narrative Exposure Therapy into the clinical practice of PTSD treatment can successfully be conducted. Despite the small TU-NET sample size the results indicate enhanced efficacy of PTSD treatment, when NET is added to the usual procedure. Therefore, exposure treatment may be effective despite an insecure living situation of most participants and does not enhance suicidal tendencies. To validate these findings a larger sample size with regard to therapists as well as patients is needed, also to allow sound statistical analyses concerning a superiority of either treatment, TU or TU-NET. Moreover, replications including comparable but also other samples of patients (e.g., survivors of civil trauma) need to be conducted since the present sample is only limited representative with regard to PTSD patients. To control the stability of the treatment effects found follow-up interviews after treatment termination are required.

The trial also indicated that abstaining from NET utilization was not due to the procedure itself, but rather due to technical questions on the one hand, such as time-costly narration writing, keeping the therapist-patient-alliance while following a manual and session length management. On the other hand, therapists felt insecure about the emotional impact of the procedure on both, the patients' as well as the therapists' side. Further NET trainings for community therapists should accordingly address these factors in theory but also in role-play and close on-site supervision.

Psychotherapy in the private practice does not seem to especially focus on effects within the first months or even the first year of treatment and aims on overall impairment reduction and enhanced functioning besides symptom reduction. Treatment as usual is unstructured on the therapists' side and rather follows current issues of patients. Therapists accordingly utilize a great variety of therapeutic techniques to meet the patients' needs. Still, implementing the NET procedure for a defined amount of sessions may lead to faster symptom reduction with regard to PTSD and still allows working on other issues before or after the exposure sessions. However, future research should also gather more information with regard to the variables on which everyday treatments work and how clinical practice and manualized treatments can complement one another.

11 Conclusion

In 2004 as many as 35.607 people applied for asylum in Germany (BAMF, 2005a). Before their arrival in Germany, the asylum seekers often have survived among others years of persecution, war, imprisonment, and torture. Often they survived a number of traumatic experiences, which affect their psychological functioning. About 40% of newly arrived asylum seekers in Germany suffer from Posttraumatic Stress Disorder (PTSD) besides other conditions (Gäbel et al., 2006). Eighty-six percent of the asylum seekers, who enter the Research- and Outpatient Clinic for Refugees of the University of Konstanz, suffer from PTSD and about seventy percent from depression. Anxiety and somatization are other highly prevalent disorders in this population. These numbers are astonishingly high, but have also been found in comparable samples in other countries (e.g., Moisander & Edston, 2003). The findings also implicate a high need with regard to health care and treatment of mental health problems.

Despite reports of low health care utilization rates in asylum seekers (e.g., Blochliger et al., 1998), we found comparable patterns in asylum seekers with PTSD to German patients suffering from the same condition, indicating active help seeking behavior. Almost ninety percent of asylum seekers reported to consult at least one physician on a regular basis and about seventy-five percent reported to receive psychotherapeutic treatment in addition. With regard to medication, the asylum seekers in our sample took more often pharmaceuticals than the German sample and reported to take up to four times more drugs on a daily basis than other studies report for non-refugee PTSD patients (e.g., Ohayon & Lader, 2002). Yet, despite the apparently intense pharmaceutical and psychological treatment the majority of asylum seekers with PTSD displayed high symptom severity and high levels of psychological impairment and suffering in the diagnostic interviews at the Research- and Outpatient Clinic for Refugees.

These findings raise the question for reasons for the lack of successful treatment. The asylum seekers, who are suffering from PTSD, could be treatment resistant – at least until a final pledge concerning their immigration status; they could not be compliant enough to treatment, especially to medication, or physicians and therapists do not conduct proper diagnostic procedures and consequently treatment with regard to psychiatric conditions, especially PTSD. Often consultations are conducted without interpreter and rather supported by family members or

acquaintances with more language proficiency, leading to less accurate diagnostic information (Eytan et al., 2002).

Contrary to these hypotheses we could show that successful treatment of this specific population is possible. Often asylum seekers entering the Research- and Outpatient Clinic for Refugees often have already seen several physicians and therapists and report defeat to their mental conditions since their suffering did not decrease due to treatment. Yet, a treatment study revealed that PTSD can be effectively treated even in this population, which continues to live in unstable and unpredictable conditions. Narrative Exposure Therapy as a science-based psychotherapeutic tool has been found to lead to faster and stable symptom reductions in comparison with treatment as usual in the clinical practice. We could show that the immediate confrontation with the traumatic experiences led to a significant and stable symptom reduction with regard to PTSD. Efficacious treatment is possible in survivors of organized violence even in an ongoing insecure living situation and with the fear of deportation. In addition, suicidal tendencies did not increase, as some clinicians would predict. Even though NET did not result in complete remission of PTSD symptoms the impairment and suffering is reduced and patients reported an increase in functioning and wellbeing. Comparable with other treatment trials in research settings, patients have often been referred to practitioners (Addis & Krasnow, 2000), since the amount of sessions was not enough to cover the whole spectrum of the patients' issues, which moreover were not the focus of this treatment. Since research clinics cannot provide treatment for the different conditions, research findings should be transferred into the clinical practice.

However, with the development of science or evidence-based treatments (EBT) a controversy rose upon the question, whether the patients' needs could be adequately met conducting EBT as opposed to an approach based on traditional therapeutic orientations. Critique concerning EBT includes that trials are not conducted under conditions the clinical practice is confronted with. For example, trials are conducted on a selected sample of patients as opposed to no selection in the clinical practice; trials focus on one aspect or condition vs. clinical practice is confronted with more than one psychiatric condition as well as occupational and family issues. In addition, therapists in academic settings, although less experienced (i.e., often graduate students), are highly trained and supervised to carry out the manualized procedures, have small case loads, and do not depend on providing treatment for their income – a different situation from what transpired in clinical practice (Kazdin, 2003). Moreover, the effective practice in-

volves more than the mastery of specific procedures outlined in EBT manuals, which is referred to as nonspecific therapy skills (Chambless & Ollendick, 2001). Accordingly, practitioners call for evidence that EBTs do lead to better and lasting treatment outcomes in their complex settings to take at least some of the manual-based approaches into consideration.

Consequently, a naturalistic study on the dissemination of Narrative Exposure Therapy into the clinical practice and its evaluation was conducted and showed promising results. Therapists working in private practice and/or counseling centers for refugees and asylum seekers were trained in NET and asked to integrate this manual-based approach into their usual treatment procedure with patients suffering from PTSD. The practitioners could integrate NET into treatment procedures. The results indicate larger effect sizes for the combined treatment in comparison with treatment as usual alone. Accordingly, NET as an evidence- and manual-based treatment approach can successfully be disseminated to practitioners, integrated into the clinical practice and does moreover enhance treatment effects.

However, only few treatments combining NET with treatment as usual have been conducted as part of the study. Analyses of the therapists' feedback concerning NET and the use of this approach indicated some aspects, which lead to hesitation. For example, therapists' felt the narration writing procedure too distractive during the sessions and time-consuming outside the sessions, especially since they would not receive reimbursement for this effort. Yet, in case of more flexible handling of this aspect, e.g. documenting only few events or the patient writes his / her narration by him-/herself, therapists reported no further difficulties concerning the NET procedure. Another important finding was that hesitation concerning the use of NET was mostly due to prejudices concerning the use of exposure and its possible devastating consequences. The results of our study indicate that patients suffering from PTSD treated with NET in combination with treatment as usual benefit more from this treatment than those who received treatment as usual alone. Effect sizes of patients treated with NET alone in the Outpatient Clinic or with NET with treatment as usual are comparable and overall higher than those found for treatment as usual (alone).

A further implication of our results is that the popular habit of long-term treatment focusing on stabilizing and supportive methods is not necessarily a prerequisite of successful confrontative treatment. Moreover, therapists' who overcame hesitation due to prejudices and who consequently followed the NET procedure reported to feel confident with the approach itself and the structure provided with it, but also in the contact with the patient and the course of the treatment. In conclusion, efficacious treatment of severely traumatized asylum seekers is pos-

sible not only under the special conditions of a research setting but also in the clinical practice under the restrictions of the health care system and the insecurity due to the pending asylum application procedure.

We moreover found that treatment as usual in the clinical practice did not correspond with treatment guidelines for PTSD provided by the ISTSS (Foa et al., 2000) or NICE (2005). Even though the majority of patients were prescribed antidepressants, the recommended medication of SSRIs was prescribed only in twenty percent of asylum seekers, but over sixty percent received tricyclic antidepressants (TCA). With regard to psychotherapeutic treatment, confrontative approaches are recommended as first line approach. Yet, in only twenty-one percent of the treatment sessions in the usual procedure exposure was conducted. The majority of treatment sessions consisted of present-focused approaches, which did not lead to notable effect sizes. Our findings are in line with other reports on PTSD treatment in the clinical practice that guideline suggestions are rather being ignored than consequently integrated into treatment procedures (C. B. Becker et al., 2004; Rosen et al., 2004). Treatment guidelines are based on empirical findings and the lack of integration into the practice indicates the urgent need to bridge the gap between research and clinical practice.

The dissemination trial and the proposed modifications to better implement NET in the clinical practice are an example on how research and therapeutic practice can aid one another's development. With regard to the treatment-manual the aspect of time-consuming narration writing could be introduced pointing out more flexibility with regard to the implementation. Future research should focus on varying focuses in the NET approach to indicate the relevant aspects and accordingly allow flexibility concerning others for better integration into the clinical practice. The clinical practice again is provided with an efficacious therapeutic module for the treatment of patients suffering from PTSD. It may lead to faster symptom reduction and therefore allow more time for the patients' other conditions, since health care usually only covers a limited amount of treatment sessions. Moreover, the study showed that treatments in which one aspect at a time was the center of attention were more effective than those in which daily matters were discussed without superior structure.

Further steps in this context should focus on the question whether research findings are feasible at all in the practice and whether research based implications are depicted clear enough. Another aspect could be that conclusions and findings are published only within the research community and only practitioners open for this kind of input actively approach this

information. Accordingly, many if not most practitioners do not get the appropriate information on new and effective treatments. In addition, practitioners usually do not focus on one psychiatric condition but visit trainings with different focuses, so that the information should be provided concise and with clear and short instructions. In the case of Germany, treatment guidelines for certain conditions could also be provided in mother tongue and through occupational unions (e.g., BDP) to reach the majority of practitioners.

Besides these rather technical questions a crucial aspect is to bring research and practice into contact to allow open discussions and synergetic effects; e.g., research trials often have a too limited focus for the clinical practice – the later needs more instructions on how to integrate glimpses into the whole picture of their work. Research might want to work on approaches for different problematic areas, which often occur in practice, e.g. "Seeking Safety" as manual-based treatment for the dual-diagnosis of PTSD and substance use disorders (Najavits, Schmitz, Gotthardt, & Weiss, 2005).

Our findings moreover indicate the need for a clarification with regard to practitioners' tasks in the context of traumatized asylum seekers. Their most pressing need may be a stable living situation, but also a relief from psychological suffering. Yet, the asylum seekers depend on professional help with regard to both aspects. A therapist who is confronted with these needs and the fact that medico-legal reports actually might influence the application procedure might misunderstand his main tasks in the context of asylum seekers, which would fist of all be the correct diagnosis and appropriate treatment of mental illness and psychological distress. Therapists often also feel responsible for legal and asylum application procedures besides questions concerning a client's accommodation or work permit. Moreover, in case of symptom remission a deportation to the country of origin is more likely, which again can cause therapists to feel responsible and dragged into a moral dilemma (Spranger, 2003). In the consequence, several aspects need to be taken into consideration during treatment and the therapist cannot focus on the treatment itself any longer. Yet, there are social workers, volunteers, lawyer etc. who also work with best intentions. A focus on the own primary tasks might lower the stress and pressure often reported by therapists in the asylum process. In case of regained or at least better mental health the asylum seeker might moreover be able to cope with the different stressors in the context of the application procedure and integration into a new culture (e.g., Sondergaard & Theorell, 2004).

In conclusion, the psychotherapeutic supply of asylum seekers as survivors of organized violence is characterized by several specifics, which include obstacles as well as prospects, such as insecure living circumstances as well as certain “basic beliefs” concerning proper treatment during these circumstances, resulting in present-focused treatments. This thesis shows that this specific group of traumatized asylum seekers could be efficaciously treated in an academic setting even in an insecure living situation using Narrative Exposure Therapy. Moreover, this treatment approach could successfully be disseminated into the clinical practice and was found to be effective also in this setting. A main implication for future research is to bring therapists in the clinical practice into contact with evidence-based approaches, to allow constructive progress in the development of proper treatment, not only for the specific target group of asylum seekers as survivors of organized violence.

12 References

Addis, M. E., & Krasnow, A. D. (2000). A National Survey of Practicing Psychologists' Attitudes Toward Psychotherapy Treatment Manuals. *J Consult Clin Psychol, 68*(2), 331-339.

Ahearn, E. P., Mussey, M., Johnson, C., Krohn, A., & Krahn, D. (2006). Quetiapine as an adjunctive treatment for post-traumatic stress disorder: an 8-week open-label study. *Int Clin Psychopharmacol, 21*(1), 29-33.

Ai, A. L., Peterson, C., & Ubelhor, D. (2002). War-related trauma and symptoms of post-traumatic stress disorder among adult Kosovar refugees. *J Trauma Stress, 15*(2), 157-160.

Al-Saffar, S., Borga, P., Edman, G., & Hallstrom, T. (2003). The etiology of posttraumatic stress disorder in four ethnic groups in outpatient psychiatry. *Soc Psychiatry Psychiatr Epidemiol, 38*(8), 456-462.

Albucher, R. C., & Liberzon, I. (2002). Psychopharmacological treatment in PTSD: a critical review. *J Psychiatr Res, 36*(6), 355-367.

Allden, K., Poole, C., Chantavanich, S., Ohmar, K., Aung, N. N., & Mollica, R. F. (1996). Burmese political dissidents in Thailand: trauma and survival among young adults in exile. *Am J Public Health, 86*(11), 1561-1569.

Allodi, F. A. (1991). Assessment and treatment of torture victims: a critical review. *J Nerv Ment Dis, 179*(1), 4-11.

Almqvist, K., & Broberg, A. G. (2003). Young children traumatized by organized violence together with their mothers--the critical effects of damaged internal representations. *Attach Hum Dev, 5*(4), 367-380; discussion 409-314.

Alonso, J., Angermeyer, M. C., Bernert, S., Bruffaerts, R., Brugha, T. S., Bryson, H., et al. (2004). Psychotropic drug utilization in Europe: results from the European Study of

the Epidemiology of Mental Disorders (ESEMeD) project. *Acta Psychiatr Scand Suppl*(420), 55-64.

Amnesty International. (2005a). Status of signature/ratification of the Optional Protocol to the Convention against Torture. Retrieved 12 August 2005, from http://web.amnesty.org/pages/treaty-opstatus-eng

Amnesty International. (2005b). Definitions of Torture. Retrieved 12 August 2005, from http://www.amnesty.org.uk/torture/definition.shtml

Amnesty International. (2005c). *Jahresbericht 2005*. Frankfurt am Main: Fischer Taschenbuch Verlag.

Andrews, G., Sanderson, K., Slade, T., & Issakidis, C. (2000). Why does the burden of disease persist? Relating the burden of anxiety and depression to effectiveness of treatment. *Bull World Health Organ, 78*(4), 446-454.

Andrews, G., & Slade, T. (2002). The classification of anxiety disorders in ICD-10 and DSM-IV: a concordance analysis. *Psychopathology, 35*(2-3), 100-106.

APA. (1980). *Diagnostic and statistic manual of mental disorders, third edition*. Washington, DC: American Psychiatric Association.

APA. (1994). *Diagnostic and statistic manual of disorders, fourth edition*. Washington, DC: American Psychiatric Association.

APA. (2000). *Diagnostic and statistic manual of mental disorders, fourth edition - text revision*. Washington, DC: American Psychiatric Association.

Asnis, G. M., Kohn, S. R., Henderson, M., & Brown, N. L. (2004). SSRIs versus non-SSRIs in post-traumatic stress disorder: an update with recommendations. *Drugs, 64*(4), 383-404.

Baker, R. (1992). Psychosocial Consequences for Tortured Refugees Seeking Asylum and Refugee Status in Europe. In Basoglu, M. (Ed.), *Torture and its consequences: current treatment approaches* (pp. 83-106). Cambridge: Cambridge University Press.

Ball, S., Bachrach, K., DeCarlo, J., Farentinos, C., Keen, M., McSherry, T., et al. (2002). Characteristics, beliefs, and practices of community clinicians trained to provide manual-guided therapy for substance abusers. *J Subst Abuse Treat, 23*, 309-318.

BAMF. (2005a). 1. Migration und Asyl. Retrieved September, 1st, 2005, from http://www.bamf.de/template/statistik

BAMF. (2005b). 2. Ausländer- und Flüchtlingszahlen. Retrieved 1 September 2005, from http://www.bamf.de/template/statistik/

BAMF. (2006). Aktuelle Zahlen. Retrieved 20 January, 2006, from http://www.bamf.de/cln_043/nn_566316/DE/DasBAMF/Statistik/statistik-node.html__nnn=true

Basoglu, M. (1993). Prevention of torture and care of survivors. An integrated approach. *Jama, 270*(5), 606-611.

Basoglu, M., & Aker, T. (1996). Cognitive-behavioural treatment of torture survivors: a case study. *Torture, 6*, 61-65.

Basoglu, M., Ekblad, S., Baarnhielm, S., & Livanou, M. (2004). Cognitive-behavioral treatment of tortured asylum seekers: a case study. *J Anxiety Disord, 18*(3), 357-369.

Basoglu, M., Livanou, M., Crnobaric, C., Franciskovic, T., Suljic, E., Duric, D., et al. (2005). Psychiatric and cognitive effects of war in former yugoslavia: association of lack of redress for trauma and posttraumatic stress reactions. *Jama, 294*(5), 580-590.

Basoglu, M., Mineka, S., Paker, M., Aker, T., Livanou, M., & Gok, S. (1997). Psychological preparedness for trauma as a protective factor in survivors of torture. *Psychol Med, 27*(6), 1421-1433.

Basoglu, M., Ozmen, E., Sahin, D., Paker, M., Tasdemir, O., Ceyhanli, A., et al. (1996). Appraisal of self, social environment, and state authority as a possible mediator of posttraumatic stress disorder in tortured political activists. *J Abnorm Psychol, 105*(2), 232-236.

Basoglu, M., Paker, M., Ozmen, E., Tasdemir, O., & Sahin, D. (1994a). Factors related to long-term traumatic stress responses in survivors of torture in Turkey. *Jama, 272*(5), 357-363.

Basoglu, M., Paker, M., Paker, O., Ozmen, E., Marks, I., Incesu, C., et al. (1994b). Psychological effects of torture: a comparison of tortured with nontortured political activists in Turkey. *Am J Psychiatry, 151*(1), 76-81.

Bayard-Burfield, L., Sundquist, J., & Johansson, S. E. (2001). Ethnicity, self reported psychiatric illness, and intake of psychotropic drugs in five ethnic groups in Sweden. *J Epidemiol Community Health, 55*(9), 657-664.

Beck, A. T., Emery, G., & Greenberg, R. L. (1985). *Anxiety Disorders and Phobias: A Cognitive Perspective*. New York: Basic Books.

Beck, A. T., Rush, A. J., Shraw, B. F., & Emery, G. (1979). *Cognitive therapy of depression*. New York: Guilford Press.

Becker, C. B., Zayfert, C., & Anderson, E. (2004). A survey of psychologists' attitudes towards and utilization of exposure therapy for PTSD. *Behav Res Ther, 42*(3), 277-292.

Becker, S. M. (1997). Psychosocial assistance after environmental accidents: a policy perspective. *Environ Health Perspect, 105 Suppl 6*, 1557-1563.

Berliner, P., Mikkelsen, E. N., Bovbjerg, A., & Wiking, M. (2004). Psychotherapy Treatment of Torture Survivors. *International Journal of Psychosocial Rehabilitation, 8*, 85-96.

Bichescu, D., Neuner, F., Schauer, M., & Elbert, T. (2006). Narrative Exposure Therapy of Political Imprisonment-Related Chronic Trauma-Spectrum Disorders. *submitted*.

Bichescu, D., Schauer, M., Neuner, F., Rockstroh, B., & Elbert, T. (2003). *PTSD and comorbid disorders and symptoms as long-term consequences of political imprisonment in Romania.* Paper presented at the VIII European Conference on Traumatic Stress (ECOTS), Berlin.

Bichescu, D., Schauer, M., Saleptsi, E., Neculau, A., Elbert, T., & Neuner, F. (2005). Long-term consequences of traumatic experiences: an assessment of former political detainees in Romania. *Clin Pract Epidemol Ment Health, 1*(1), 17.

Birck, A. (2001). Torture victims after psychotherapy: A two-year follow up. *Torture, 11*, 55-58.

Birck, A. (2004). [Symptoms in refugees who survived torture or war, with and without psychotherapy]. *Zeitschrift für klinische Psychologie und Psychotherapie, 33*(2), 101-109.

Birmes, P., Brunet, A., Carreras, D., Ducasse, J. L., Charlet, J. P., Lauque, D., et al. (2003). The predictive power of peritraumatic dissociation and acute stress symptoms for posttraumatic stress symptoms: a three-month prospective study. *Am J Psychiatry, 160*(7), 1337-1339.

Blair, R. G. (2000). Risk factors associated with PTSD and major depression among Cambodian refugees in Utah. *Health Soc Work, 25*(1), 23-30.

Blake, D. D., Weathers, F. W., Nagy, L. M., Kaloupek, D. G., Gusman, F. D., Charney, D. S., et al. (1995). The development of a Clinician-Administered PTSD Scale. *J Trauma Stress, 8*(1), 75-90.

Blanchard, E. B., Hickling, E. J., Malta, L. S., Freidenberg, B. M., Canna, M. A., Kuhn, E., et al. (2004). One- and two-year prospective follow-up of cognitive behavior therapy or supportive psychotherapy. *Behav Res Ther, 42*, 745-759.

Bleich, A., Koslowsky, M., Dolev, A., & Lerer, B. (1997). Post-traumatic stress disorder and depression. An analysis of comorbidity. *Br J Psychiatry, 170*, 479-482.

Blochliger, C., Junghanss, T., Weiss, R., Herzog, C., Raeber, P. A., Tanner, M., et al. (1998). [Asylum seekers and refugees in general practice: problems and possible developments]. *Soz Praventivmed, 43*(1), 18-28.

Boos, A., Ehlers, A., Maercker, A., & Schuetzwohl, M. (1998). Trauma, cognition and chronic PTSD: A study on former East German political prisoners. *Zeitschrift für klinische Psychologie und Psychotherapie, 27*(4), 244-253.

Bracken, P. J., Giller, J. E., & Summerfield, D. (1995). Psychological responses to war and atrocity: the limitations of current concepts. *Soc Sci Med, 40*(8), 1073-1082.

Bradley, R., Greene, J., Russ, E., Dutra, L., & Westen, D. (2005). A multidimensional meta-analysis of psychotherapy for PTSD. *Am J Psychiatry, 162*(2), 214-227.

Brady, K. T. (1997). Posttraumatic stress disorder and comorbidity: recognizing the many faces of PTSD. *J Clin Psychiatry, 58 Suppl 9*, 12-15.

Brady, K. T., Killeen, T. K., Brewerton, T., & Lucerini, S. (2000). Comorbidity of psychiatric disorders and posttraumatic stress disorder. *J Clin Psychiatry, 61 Suppl 7*, 22-32.

Breslau, N. (2002). Epidemiologic studies of trauma, posttraumatic stress disorder, and other psychiatric disorders. *Can J Psychiatry, 47*(10), 923-929.

Breslau, N., & Davis, G. C. (1992). Posttraumatic stress disorder in an urban population of young adults: risk factors for chronicity. *Am J Psychiatry, 149*(5), 671-675.

Breslau, N., Davis, G. C., Andreski, P., & Peterson, E. (1991). Traumatic events and post-traumatic stress disorder in an urban population of young adults. *Arch Gen Psychiatry, 48*(3), 216-222.

Breslau, N., Kessler, R. C., Chilcoat, H. D., Schultz, L. R., Davis, G. C., & Andreski, P. (1998). Trauma and posttraumatic stress disorder in the community: the 1996 Detroit Area Survey of Trauma. *Arch Gen Psychiatry, 55*(7), 626-632.

Brewin, C. R., Andrews, B., & Valentine, J. D. (2000). Meta-analysis of risk factors for post-traumatic stress disorder in trauma-exposed adults. *J Consult Clin Psychol, 68*(5), 748-766.

Briere, J., Scott, C., & Weathers, F. (2005). Peritraumatic and Persistent Dissociation in the Presumed Etiology of PTSD. *Am J Psychiatry, 162*(12), 2295-2301.

British Medical Association. (1992). *Medicine betrayed: the participation of doctors in human rights abusus*. London: Zed Books.

Brockmann, J., Schlüter, T., Brodbeck, D., & Eckert, J. (2002). Die Effekte psychoanalytisch orientierter und verhaltenstherapeutischer Langzeittherapien. *Psychotherapeut, 47*, 347-355.

Broda, M., Bürger, W., Dinger-Broda, A., & Massing, H. (1996). *Die Berus-Studie. Zur Ergebnisevaluation der Therapie psychosomatischer Störungen bei gewerblichen Arbeitnehmern*. Berlin/Bonn: Westkreuz.

Brom, D., Kleber, R. J., & Defares, P. B. (1989). Brief psychotherapy for posttraumatic stress disorders. *J Consult Clin Psychol, 57*(5), 607-612.

Brucks, U. (2004). Der blinde Fleck der medizinischen Versorgung in Deutschland - Migration und psychische Erkrankung. *Psycho - Zeitschrift für Praxis und Klinik*(4), 228.

Brucks, U., & Wahl, W.-B. (2003). Über-, Unter-, Fehlversorgung? Bedarfslücken und Strukturprobleme in der ambulanten Gesundheitsversorgung von Migrantinnen und Migranten. In Borde, T. & David, M. (Eds.), *Gut versorgt? Migrantinnen und Migranten im Gesundheits- und Sozialwesen* (pp. 15-34). Frankfurt am Main: Mabuse-Verlag.

Brune, M., Haasen, C., Krausz, M., Yagdiran, O., Bustos, E., & Eisenman, D. (2002). Belief systems as coping factors for traumatized refugees: a pilot study. *Eur Psychiatry, 17*(8), 451-458.

Bryant, R. A. (2003). Early predictors of posttraumatic stress disorder. *Biol Psychiatry, 53*(9), 789-795.

Bryant, R. A. (2005). Predicting posttraumatic stress disorder from acute reactions. *J Trauma Dissociation, 6*(2), 5-15.

Bryant, R. A., & Guthrie, R. M. (2005). Maladaptive appraisals as a risk factor for posttraumatic stress. *Psychol Sci, 16*(10), 749-752.

Bryant, R. A., Moulds, M. L., Guthrie, R. M., Dang, S. T., & Nixon, R. D. (2003). Imaginal exposure alone and imaginal exposure with cognitive restructuring in treatment of posttraumatic stress disorder. *J Consult Clin Psychol, 71*(4), 706-712.

Bryant, R. A., Moulds, M. L., Guthrie, R. M., & Nixon, R. D. (2005). The additive benefit of hypnosis and cognitive-behavioral therapy in treating acute stress disorder. *J Consult Clin Psychol, 73*(2), 334-340.

Buchanan, G., & Seligman, M. E. P. (Eds.). (1995). *Explanatory Style*. Hillsdale, NJ: Erlbaum.

Burstein, A. (1986). Treatment noncompliance in patients with post-traumatic stress disorder. *Psychosomatics, 27*(1), 37-40.

Carey, P. D., Stein, D. J., Zungu-Dirwayi, N., & Seedat, S. (2003). Trauma and posttraumatic stress disorder in an urban Xhosa primary care population: prevalence, comorbidity, and service use patterns. *J Nerv Ment Dis, 191*(4), 230-236.

Carlson, E. B., & Rosser-Hogan, R. (1991). Trauma experiences, posttraumatic stress, dissociation, and depression in Cambodian refugees. *Am J Psychiatry, 148*(11), 1548-1551.

Carlsson, J. M., Mortensen, E. L., & Kastrup, M. (2005). A follow-up study of mental health and health-related quality of life in tortured refugees in multidisciplinary treatment. *J Nerv Ment Dis, 193*(10), 651-657.

Castillo, D. T. (2004). Systematic Outpatient Treatment of Sexual Trauma in Women: Application of Cognitive and Behavioral Protocols. *Cognitive and Behavioral Practice, 11*, 352-365.

Castillo, D. T., Sandeen, E., Fallon, S. K., & Nye, E. C. (2001). *Psychological profiles of women treated with exposure-based therapy.* Paper presented at the annual meeting of the International Society for Traumatic Stress Studies, New Orleans, LA.

Catani, C., Kohiladevy, M., Neuner, F., Ruf, M., Schauer, M., Elbert, T., et al. (2005). *Treating children shattered by war and natural disaster: a controlled clinical trial in Sri Lanka's North-Eastern coastal region affected by the Tsunami.* Paper presented at the ESTSS, Stockholm.

Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: controversies and evidence. *Annu Rev Psychol, 52*, 685-716.

Cheung, P. (1994). Posttraumatic stress disorder among Cambodian refugees in New Zealand. *Int J Soc Psychiatry, 40*(1), 17-26.

Cienfuegos, A. J., & Monelli, C. (1983). The testimony of political repression as a therapeutic instrument. *Am J Orthopsychiatry, 53*(1), 43-51.

Classen, G. (2006). Die Auswirkungen der Gesundheitsreform auf die medizinische Versorgung von Sozialhilfeberechtigten und Flüchtlingen. Retrieved January 23, from http://www.fluechtlingsinfo-berlin.de/fr/arbeitshilfen/Kommentar_GMG.pdf

Cloitre, M., Koenen, K. C., Cohen, L. R., & Han, H. (2002). Skills training in affective and interpersonal regulation followed by exposure: a phase-based treatment for PTSD related to childhood abuse. *J Consult Clin Psychol, 70*(5), 1067-1074.

Cohen, J. (1988). *Statistical Power Analysis For The Behavioral Sciences* (Vol. 2). Hillsdale, NJ: Lawrence Earlbaum Associates.

Connor, K. M., Davidson, J. R., Weisler, R. H., & Ahearn, E. (1999). A pilot study of mirtazapine in post-traumatic stress disorder. *Int Clin Psychopharmacol, 14*(1), 29-31.

Connor, K. M., Davidson, J. R., Weisler, R. H., Zhang, W., & Abraham, K. (2006). Tiagabine for posttraumatic stress disorder: effects of open-label and double-blind discontinuation treatment. *Psychopharmacology (Berl), 184*(1), 21-25.

Cooper, J., Carty, J., & Creamer, M. (2005). Pharmacotherapy for posttraumatic stress disorder: empirical review and clinical recommendations. *Aust N Z J Psychiatry, 39*(8), 674-682.

Crelinsten, R. D., & Schmid, A. P. (Eds.). (1995). *The Politics of Pain: Torturers and Their Masters*. Oxford: Westview Press.

Dantzer, R. (2005). Somatization: a psychoneuroimmune perspective. *Psychoneuroendocrinology, 30*(10), 947-952.

Davidson, J. R. (2006). Pharmacologic Treatment of Acute and Chronic Stress Following Trauma: 2006. *J Clin Psychiatry, 67*(suppl 2), 34-39.

Davidson, J. R., & Connor, K. M. (1999). Management of posttraumatic stress disorder: diagnostic and therapeutic issues. *J Clin Psychiatry, 60 Suppl 18*, 33-38.

Davidson, J. R., Weisler, R. H., Butterfield, M. I., Casat, C. D., Connor, K. M., Barnett, S., et al. (2003). Mirtazapine vs. placebo in posttraumatic stress disorder: a pilot trial. *Biol Psychiatry, 53*(2), 188-191.

Davidson, P. R., & Parker, K. C. (2001). Eye movement desensitization and reprocessing (EMDR): a meta-analysis. *J Consult Clin Psychol, 69*(2), 305-316.

Davis, R. M., & Davis, H. (2006). PTSD symptom changes in refugees. *Torture, 16*(1), 10-19.

de Girolamo, G. M., & McFarlane, A. C. (1996). The epidemiology of PTSD: A comprehensive review of the international literature. In Marsella, A. J., Friedmann, M. J., Gerrity, E. T. & Scurfield, R. M. (Eds.), *Ethnocultural aspects of Posttraumatic Stress Disorder: Issues, research, and clinical applications* (pp. 33-85). Washington, DC: American Psychological Association.

De Jong, J. T. (2005). Commentary: Deconstructing Critiques on the Internationalization of PTSD. *Cult Med Psychiatry, 29*(3), 361-370.

de Jong, J. T., Komproe, I. H., Van Ommeren, M., El Masri, M., Araya, M., Khaled, N., et al. (2001). Lifetime events and posttraumatic stress disorder in 4 postconflict settings. *JAMA, 286*(5), 555-562.

de Jong, K., Mulhern, M., Ford, N., van der Kam, S., & Kleber, R. (2000). The trauma of war in Sierra Leone. *Lancet, 355*(9220), 2067-2068.

de Leeuw, R., Schmidt, J. E., & Carlson, C. R. (2005). Traumatic stressors and post-traumatic stress disorder symptoms in headache patients. *Headache, 45*(10), 1365-1374.

Dennen, J. M. G. v. d. (2005). Problems in the Concepts and Definitions of Aggression, Violence, and Some Related Terms: Pt.3: Notes. Retrieved 10.08.2005, from http://irs.ub.rug.nl/ppn/280498896

Derogatis, L. R., Lipman, R. S., Rickels, K., Uhlenhuth, E. H., & Covi, L. (1974). The Hopkins Symptom Checklist (HSCL): a self-report symptom inventory. *Behav Sci, 19*(1), 1-15.

Devilly, G. J., & Spence, S. H. (1999). The relative efficacy and treatment distress of EMDR and a cognitive-behavior trauma treatment protocol in the amelioration of posttraumatic stress disorder. *J Anxiety Disord, 13*(1-2), 131-157.

Deykin, E. Y., Keane, T. M., Kaloupek, D., Fincke, G., Rothendler, J., Siegfried, M., et al. (2001). Posttraumatic stress disorder and the use of health services. *Psychosom Med, 63*(5), 835-841.

Diderichsen, F., Varde, E., & Whitehead, M. (1997). Resource allocation to health authorities: the quest for an equitable formula in Britain and Sweden. *Bmj, 315*(7112), 875-878.

Dunmore, E., Clark, D. M., & Ehlers, A. (2001). A prospective investigation of the role of cognitive factors in persistent posttraumatic stress disorder (PTSD) after physical or sexual assault. *Behav Res Ther, 39*(9), 1063-1084.

Edlund, M. J., Wang, P. S., Berglund, P. A., Katz, S. J., Lin, E., & Kessler, R. C. (2002). Dropping out of mental health treatment: patterns and predictors among epidemiological survey respondents in the United States and Ontario. *Am J Psychiatry, 159*(5), 845-851.

Egberts, A. C., Leufkens, H. G., Hofman, A., & Hoes, A. W. (1997). Incidence of antidepressant drug use in older adults and association with chronic diseases: the Rotterdam Study. *Int Clin Psychopharmacol, 12*(4), 217-223.

Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behav Res Ther, 38*(4), 319-345.

Ehlers, A., Clark, D. M., Dunmore, E., Jaycox, L., Meadows, E., & Foa, E. B. (1998). Predicting response to exposure treatment in PTSD: the role of mental defeat and alienation. *J Trauma Stress, 11*(3), 457-471.

Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., & Fennell, M. (2005). Cognitive therapy for post-traumatic stress disorder: development and evaluation. *Behav Res Ther, 43*(4), 413-431.

Ehlers, A., Clark, D. M., Hackmann, A., McManus, F., Fennell, M., Herbert, C., et al. (2003). A randomized controlled trial of cognitive therapy, a self-help booklet, and repeated assessments as early interventions for posttraumatic stress disorder. *Arch Gen Psychiatry, 60*(10), 1024-1032.

Eisenbruch, M. (1991). From post-traumatic stress disorder to cultural bereavement: diagnosis of Southeast Asian refugees. *Soc Sci Med, 33*(6), 673-680.

Ekblad, S., & Roth, G. (1997). Diagnosing posttraumatic stress disorder in multicultural patients in a Stockholm psychiatric clinic. *J Nerv Ment Dis, 185*(2), 102-107.

Engdahl, B., Dikel, T. N., Eberly, R., & Blank, A., Jr. (1997). Posttraumatic stress disorder in a community group of former prisoners of war: a normative response to severe trauma. *Am J Psychiatry, 154*(11), 1576-1581.

Escalona, R., Achilles, G., Waitzkin, H., & Yager, J. (2004). PTSD and somatization in women treated at a VA primary care clinic. *Psychosomatics, 45*(4), 291-296.

Eytan, A., Bischoff, A., Rrustemi, I., Durieux, S., Loutan, L., Gilbert, M., et al. (2002). Screening of mental disorders in asylum-seekers from Kosovo. *Aust N Z J Psychiatry, 36*(4), 499-503.

Eytan, A., Gex-Fabry, M., Toscani, L., Deroo, L., Loutan, L., & Bovier, P. A. (2004). Determinants of postconflict symptoms in Albanian Kosovars. *J Nerv Ment Dis, 192*(10), 664-671.

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. *Lancet, 365*(9467), 1309-1314.

Ferber, L. v., Köster, I., & Celair-Erdogan, N. (2003). Türkische und deutsche Hausarztpatienten - Erkrankungen, Arzneimittelerwartungen und Verordnungen. *Das Gesundheitswesen, 65*(5), 304-311.

First, M., Spitzer, R., Williams, J., & Gibbon, M. (2000). Structured Clinical Interview for DSM-IV Axis I Disorders, PTSD Module. In APA (Ed.), *Handbook of Psychiatric Measures* (pp. 49-53). Washington, DC: American Psychiatric Association.

Fischer, G., & Nathan, R. (2002). Diagnose der Psychodynamik bei Störungsbildern mit psychotraumatischer Ätiologie. *Psychotraumatologie, 3*, 28-41.

Fisher, P. M., Winne, P. H., & Ley, R. G. (1993). Group therapy for adult woman survivors of child sexual abuse: Differentiation of completers versus dropouts. *Psychotherapy: Theory, Research, Practice, Training, 30*(4), 616-624.

Flüchtlingsrat Berlin, Ärztekammer Berlin, & Pro Asyl (Eds.). (1998). *Gefesselte Medizin: Ärztliches Handeln - abhängig von Aufenthaltsrechten?* Berlin: agit-druck.

Foa, E. B. (1995a). Post-traumatic Diagnostic Scale.

Foa, E. B. (1995b). *Post-traumatic Diagnostic Scale*. Minneapolis: National Computer Systems.

Foa, E. B. (2000). Psychosocial treatment of posttraumatic stress disorder. *J Clin Psychiatry, 61 Suppl 5*, 43-48; discussion 49-51.

Foa, E. B., Dancu, C. V., Hembree, E. A., Jaycox, L. H., Meadows, E. A., & Street, G. P. (1999). A comparison of exposure therapy, stress inoculation training, and their combination for reducing posttraumatic stress disorder in female assault victims. *J Consult Clin Psychol, 67*(2), 194-200.

Foa, E. B., Hembree, E. A., Cahill, S. P., Rauch, S. A., Riggs, D. S., Feeny, N. C., et al. (2005). Randomized trial of prolonged exposure for posttraumatic stress disorder with and without cognitive restructuring: Outcome at academic and community clinics. *J Consult Clin Psychol, 73*(5), 953-964.

Foa, E. B., Keane, T. M., & Friedmann, M. J. (2000). *Effective treatments for PTSD*. New York: Guilford Press.

Foa, E. B., & Kozak, M. J. (1986). Emotional processing of fear: exposure to corrective information. *Psychol Bull, 99*(1), 20-35.

Foa, E. B., & Meadows, E. A. (1997). Psychosocial treatments for posttraumatic stress disorder: a critical review. *Annu Rev Psychol, 48*, 449-480.

Foa, E. B., & Rauch, S. A. (2004). Cognitive changes during prolonged exposure versus prolonged exposure plus cognitive restructuring in female assault survivors with posttraumatic stress disorder. *J Consult Clin Psychol, 72*(5), 879-884.

Foa, E. B., Riggs, D. S., Dancu, C. V., & Rothbaum, B. O. (1993). Reliability and validity of a brief instrument for assessing post-traumatic stress disorder. *J Trauma Stress, 6*, 459-473.

Foa, E. B., Riggs, D. S., & Gershuny, B. S. (1995). Arousal, numbing, and intrusion: symptom structure of PTSD following assault. *Am J Psychiatry, 152*(1), 116-120.

Foa, E. B., & Rothbaum, B. O. (1998). *Treating the trauma of rape: Cognitive-behavioral therapy for PTSD*. New York: Guilford Press.

Foa, E. B., Rothbaum, B. O., Riggs, D. S., & Murdock, T. B. (1991). Treatment of posttraumatic stress disorder in rape victims: a comparison between cognitive-behavioral procedures and counseling. *J Consult Clin Psychol, 59*(5), 715-723.

Folkes, C. E. (2002). Thought field therapy and trauma recovery. *Int J Emerg Ment Health, 4*(2), 99-103.

Ford, J. D. (1999). Disorders of extreme stress following war-zone military trauma: associated features of posttraumatic stress disorder or comorbid but distinct syndromes? *J Consult Clin Psychol, 67*(1), 3-12.

Foy, D. W., Kagan, B., McDermott, C., Leskin, G., Sipprelle, R. C., & Paz, G. (1996). Practical parameters in the use of flooding for treating chronic PTSD. *Clin Psychol Psychother, 3*(3), 169-175.

Frey, C., & Valach, L. (1997). [The treatment of torture and war victims]. *Schweiz Rundsch Med Prax, 86*(21), 899-905.

Friedmann, M. J. (2001). *Post traumatic stress disorder: the latest assessment and treatment strategies*. Kansas City, MO: Compact Clinical.

Frueh, B. C., Gold, P. B., Dammeyer, M., Pellegrin, K. L., Hamner, M. B., Johnson, M. R., et al. (2000). Differentiation of depression and PTSD symptoms in combat veterans. *Depress Anxiety, 11*(4), 175-179.

Garcia-Castrillo Riesgo, L., & Garcia Merino, A. (2003). Terrorism in Spain: emergency medical aspects. *Prehospital Disaster Med, 18*(2), 148-151.

Gavrilovic, J. J., Schutzwohl, M., Fazel, M., & Priebe, S. (2005). Who seeks treatment after a traumatic event and who does not? A review of findings on mental health service utilization. *J Trauma Stress, 18*(6), 595-605.

Gerritsen, A. A., Bramsen, I., Deville, W., van Willigen, L. H., Hovens, J. E., & van der Ploeg, H. M. (2004). Health and health care utilization among asylum seekers and refugees in the Netherlands: design of a study. *BMC Public Health, 4*(1), 7.

Gerritsen, A. A., Bramsen, I., Deville, W., van Willigen, L. H., Hovens, J. E., & van der Ploeg, H. M. (2005). Physical and mental health of Afghan, Iranian and Somali asylum seekers and refugees living in the Netherlands. *Soc Psychiatry Psychiatr Epidemiol*.

Gersons, B. P., & Olff, M. (2005). Coping with the aftermath of trauma. *Bmj, 330*(7499), 1038-1039.

Gold, P. B., Engdahl, B. E., Eberly, R. E., Blake, R. J., Page, W. F., & Frueh, B. C. (2000). Trauma exposure, resilience, social support, and PTSD construct validity among former prisoners of war. *Soc Psychiatry Psychiatr Epidemiol, 35*(1), 36-42.

Gorst-Unsworth, C., & Goldenberg, E. (1998). Psychological sequelae of torture and organized violence suffered by refugees from Iraq. Trauma-related factors compared with social factors in exile. *Br J Psychiatry, 172*, 90-94.

Graessner, S., Wenk-Ansohn, M. (2000). *Die Spuren von Folter.*: Libri Books.

Green, B. L. (1994). Psychosocial research in traumatic stress: an update. *J Trauma Stress, 7*(3), 341-362.

Green, B. L., Goodman, L. A., Krupnick, J. L., Corcoran, C. B., Petty, R. M., Stockton, P., et al. (2000). Outcomes of single versus multiple trauma exposure in a screening sample. *J Trauma Stress, 13*(2), 271-286.

Green, J. (2003). Collective violence: whose responsibility? *Promot Educ, 10*(2), 56-57, 79-80, 100-101.

Greene, J. Y., Weinberger, M., Jerin, M. J., & Mamlin, J. J. (1982). Compliance with medication regimens among chronically ill, inner city patients. *J Community Health, 7*(3), 183-193.

Grinage, B. D. (2003). Diagnosis and management of post-traumatic stress disorder. *Am Fam Physician, 68*(12), 2401-2408.

Gurris, N. F. (2005). *Studie zu stellvertretender Traumatisierung bei N = 101 Therapeuten von Folterüberlebenden.* Paper presented at the 7. Jahrestagung der Deutschsprachigen Gesellschaft für Psychotrauamtologie (DeGPT), Dresden.

Gäbel, U., Ruf, M., Schauer, M., Odenwald, M., & Neuner, F. (2006). Prevalence of post-traumatic stress disorder among asylum seekers in Germany and its detection in the application process for asylum. *Zeitschrift für klinische Psychologie und Psychotherapie, 35*(1), 12-20.

Haasen, C., & Yagdiran, O. (2000). *Beurteilung psychischer Störungen in einer multikulturellen Gesellschaft*. Freiburg im Breisgau: Lambertus-Verlag.

Hamilton, M. (1967). Development of a rating scale for primary depressive illness. *Br J Soc Clin Psychol, 6*(4), 278-296.

Heinrichs, M., Wagner, D., Schoch, W., Soravia, L. M., Hellhammer, D. H., & Ehlert, U. (2005). Predicting posttraumatic stress symptoms from pretraumatic risk factors: a 2-year prospective follow-up study in firefighters. *Am J Psychiatry, 162*(12), 2276-2286.

Helzer, J. E., Robins, L. N., & McEvoy, L. (1987). Post-traumatic stress disorder in the general population. Findings of the epidemiologic catchment area survey. *N Engl J Med, 317*(26), 1630-1634.

Hembree, E. A., Foa, E. B., Dorfan, N. M., Street, G. P., Kowalski, J., & Tu, X. (2003). Do patients drop out prematurely from exposure therapy for PTSD? *J Trauma Stress, 16*(6), 555-562.

Herlihy, J., Scragg, P., & Turner, S. (2002). Discrepancies in autobiographical memories--implications for the assessment of asylum seekers: repeated interviews study. *Bmj, 324*(7333), 324-327.

Herman, J. L. (1992). *Trauma and recovery*. New York: Basic Books.

Hertzberg, M. A., Butterfield, M. I., Feldman, M. E., Beckham, J. C., Sutherland, S. M., Connor, K. M., et al. (1999). A preliminary study of lamotrigine for the treatment of post-traumatic stress disorder. *Biol Psychiatry, 45*(9), 1226-1229.

Hinton, D. E., Chhean, D., Pich, V., Safren, S. A., Hofmann, S. G., & Pollack, M. H. (2005). A randomized controlled trial of cognitive-behavior therapy for Cambodian refugees with treatment-resistant PTSD and panic attacks: A cross-over design. *J Trauma Stress, 18*(6), 617-629.

Hinton, D. E., Pham, T., Tran, M., Safren, S. A., Otto, M. W., & Pollack, M. H. (2004). CBT for Vietnamese refugees with treatment-resistant PTSD and panic attacks: a pilot study. *J Trauma Stress, 17*(5), 429-433.

Hjern, A. (2001). High use of sedatives and hypnotics in ethnic minorities in Sweden. *Ethn Health, 6*(1), 5-11.

Hohmann, A. A. (1989). Gender bias in psychotropic drug prescribing in primary care. *Med Care, 27*(5), 478-490.

Hollon, S. D., Thase, M. E., & Markowitz, J. C. (2002). Treatment and prevention of depression. *Psychological Science in the Public Interest, 3*, 39-77.

Holtz, T. H. (1998). Refugee trauma versus torture trauma: a retrospective controlled cohort study of Tibetan refugees. *J Nerv Ment Dis, 186*(1), 24-34.

Hope, D. A., Heimberg, R. G., & Bruch, M. A. (1995). Dismantling cognitive-behavioral group therapy for social phobia. *Behav Res Ther, 33*(6), 637-650.

Hopkins, W. B., Seltzer, A., & Avigaard, J. (2005, 12 May). NICE PTSD guidelines - not easily applicable to refugees*,* Electronic response to: Coping with the aftermath of trauma. bmj.com 2005.

Horowitz, M. J. (1976). *Stress-response syndromes*. Northvale, NJ: Aronson.

Horowitz, M. J. (1986). *Stress response syndromes* (Vol. 2). New York: Jason Aronson.

Howgego, I. M., Owen, C., Meldrum, L., Yellowlees, P., Dark, F., & Parslow, R. (2005). Posttraumatic stress disorder: an exploratory study examining rates of trauma and PTSD and its effect on client outcomes in community mental health. *BMC Psychiatry, 5*(1), 21.

Hunt, N., & Gakenyi, M. (2005). Comparing refugees and nonrefugees: the Bosnian experience. *J Anxiety Disord, 19*(6), 717-723.

IRCT. (2005). About torture and rehabilitation. Retrieved 12 August 2005, from http://www.irct.org/usr/irct/home.nsf/unid/JREW-5GHJL2

Jamil, H., Hakim-Larson, J., Farrag, M., Kafaji, T., Jamil, L. H., & Hammad, A. (2005). Medical complaints among Iraqi American refugees with mental disorders. *J Immigr Health, 7*(3), 145-152.

Jaranson, J. M., Butcher, J., Halcon, L., Johnson, D. R., Robertson, C., Savik, K., et al. (2004). Somali and Oromo refugees: correlates of torture and trauma history. *Am J Public Health, 94*(4), 591-598.

Jarbrink, K., Carlsten, A., & Frederiksen, S. O. (1999). Swedish physicians' inclination to prescribe benzodiazepines: differences between regions and characteristics of the prescriber. *Scand J Public Health, 27*(1), 22-29.

Kang, H. K., Bullman, T. A., & Taylor, J. W. (2005). Risk of Selected Cardiovascular Diseases and Posttraumatic Stress Disorder among Former World War II Prisoners of War. *Ann Epidemiol*.

Kaplan, Z., Matar, M. A., Kamin, R., Sadan, T., & Cohen, H. (2005). Stress-related responses after 3 years of exposure to terror in Israel: are ideological-religious factors associated with resilience? *J Clin Psychiatry, 66*(9), 1146-1154.

Karunakara, U. K., Neuner, F., Schauer, M., Singh, K., Hill, K., Elbert, T., et al. (2004). Traumatic events and symptoms of post-traumatic stress disorder amongst Sudanese nationals, refugees and Ugandans in the West Nile. *Afr Health Sci, 4*(2), 83-93.

Katz, R. J., Lott, M. H., Arbus, P., Crocq, L., Herlobsen, P., Lingjaerde, O., et al. (1995). Phyarmacotherapy of Post Traumatic Stress Disorder with a Novel Psychotropic. *Anxiety, 1*, 169-174.

Kazdin, A. E. (2003). Psychotherapy for children and adolescents. *Annu Rev Psychol, 54*(1), 253-276.

Kessler, R. C., Sonnega, A., Bromet, E., Hughes, M., & Nelson, C. B. (1995). Posttraumatic stress disorder in the National Comorbidity Survey. *Arch Gen Psychiatry, 52*(12), 1048-1060.

Kilic, C., Aydin, I., Taskintuna, N., Ozcurumez, G., Kurt, G., Eren, E., et al. (2006). Predictors of psychological distress in survivors of the 1999 earthquakes in Turkey: effects of relocation after the disaster. *Acta Psychiatr Scand, 114*(3), 194-202.

Kinzie, J. D., & Friedmann, M. J. (2004). Psychopharmacology for Refugee and Asylum-Seeker Patients. In Wilson, J. P. & Drozdek, B. (Eds.), *Broken Spirits: The treatment of traumatized asylum seekers, refugees, war and torture victims* (pp. 579-600). New York: Brunner-Routledge.

Kinzie, J. D., Leung, P., Boehnlein, J. K., & Fleck, J. (1987). Antidepressant blood levels in Southeast Asians. Clinical and cultural implications. *J Nerv Ment Dis, 175*(8), 480-485.

Kluwe-Schleberger, G. (2002). Die Würde des Menschen ist antastbar. Human dignity can be injured. Psychotraumatherapie im Spannungsfeld zwischen parteilicher Abstinenz und Sozialarbeit. *Psychotraumatologie*(4), 46.

Kordy, H. (2004). Mit Transparenz und Ergebnisorientierung zur Optimierung der psychotherapeutischen Versorgung. TRANS-OP: Eine Studie zur Evaluation ambulanter Psychotherapie. Retrieved June, 21, 2006, from http://www.psyres-stuttgart.de/html/transop/index.html

Korn, D. L., & Leeds, A. M. (2002). Preliminary evidence of efficacy for EMDR resource development and installation in the stabilization phase of treatment of complex post-traumatic stress disorder. *J Clin Psychol, 58*(12), 1465-1487.

Kroll, J., Linde, P., Habenicht, M., Chan, S., Yang, M., Vang, T., et al. (1990). Medication compliance, antidepressant blood levels, and side effects in Southeast Asian patients. *J Clin Psychopharmacol, 10*(4), 279-283.

Krug, E. G., Dahlberg, L.L., Mercy, J.A., Zwi, A.B., and Lozano, R., eds. (2002). *World report on violence and health*. Geneva: World Health Organization.

Krupnick, J. L. (2002). Brief psychodynamic treatment of PTSD. *J Clin Psychol, 58*(8), 919-932.

Lang, P. J. (1979). Presidential address, 1978. A bio-informational theory of emotional imagery. *Psychophysiology, 16*(6), 495-512.

Lauterbach, D., Vora, R., & Rakow, M. (2005). The relationship between posttraumatic stress disorder and self-reported health problems. *Psychosom Med, 67*(6), 939-947.

Lavik, N. J., Hauff, E., Skrondal, A., & Solberg, O. (1996). Mental disorder among refugees and the impact of persecution and exile: some findings from an out-patient population. *Br J Psychiatry, 169*(6), 726-732.

Lee, A., Buchwald, D., & Hooton, T. M. (1993). Knowledge and compliance with medications in South East Asian refugees. *J Clin Pharm Ther, 18*(3), 199-204.

Leichsenring, F. (2004). Randomized controlled versus naturalistic studies: a new research agenda. *Bull Menninger Clin, 68*(2), 137-151.

Leonhardt, M., & Foerster, K. (2003). Probleme bei der Begutachtung der posttraumatischen Belastungsstörung. *Med Sach, 99*(5), 150-155.

Leth, P. M., & Banner, J. (2005). Forensic medical examination of refugees who claim to have been tortured. *Am J Forensic Med Pathol, 26*(2), 125-130.

Lie, B. (2002). A 3-year follow-up study of psychosocial functioning and general symptoms in settled refugees. *Acta Psychiatr Scand, 106*(6), 415-425.

Lin, E., Goering, P., Offord, D. R., Campbell, D., & Boyle, M. H. (1996). The use of mental health services in Ontario: epidemiologic findings. *Can J Psychiatry, 41*(9), 572-577.

Linden, M., Lecrubier, Y., Bellantuono, C., Benkert, O., Kisely, S., & Simon, G. (1999). The prescribing of psychotropic drugs by primary care physicians: an international collaborative study. *J Clin Psychopharmacol, 19*(2), 132-140.

Lira, E., Baker, D., & Castillo, M. I. (1990). Psychotherapy with Victims of Political Repression in Chile: A Therapeutic and Political Challenge. In Gruschow, J. & Hannibal, K. (Eds.), *Health Services for The Treatment of Torture and Trauma Survivors*: American Association for the Advancement of Science (AAAS) Publication.

Lopez-Ibor, J. J. (2002). The classification of stress-related disorders in ICD-10 and DSM-IV. *Psychopathology, 35*(2-3), 107-111.

Löcherbach, P., & Weber, I. (2000). Psychotherapeutische Bedarfsplanung nach dem Gesetz: Ohne Korrektur der Planungszahlen wird Fehlversorgung festgeschrieben. *Journal für Psychologie, 8*(4), 27-40.

MacKenzie, T. D., Kolpak, S. J., & Mehler, P. S. (2005). Prevalence and treatment of mental disorders. *N Engl J Med, 353*(11), 1184; author reply 1184.

Maercker, A., Michael, T., Fehm, L., Becker, E. S., & Margraf, J. (2004). Age of traumatization as a predictor of post-traumatic stress disorder or major depression in young women. *Br J Psychiatry, 184*, 482-487.

Maercker, A., & Schutzwohl, M. (1997). Long-term effects of political imprisonment: a group comparison study. *Soc Psychiatry Psychiatr Epidemiol, 32*(8), 435-442.

Malekzai, A. S., Niazi, J. M., Paige, S. R., Hendricks, S. E., Fitzpatrick, D., Leuschen, M. P., et al. (1996). Modification of CAPS-1 for diagnosis of PTSD in Afghan refugees. *J Trauma Stress, 9*(4), 891-898.

Margraf, J., Schneider, S., & Ehlers, A. (1994). *DIPS: Diagnostisches Interview bei Psychischen Störungen*. Berlin: Springer-Verlag.

Marks, I., Lovell, K., Noshirvani, H., Livanou, M., & Thrasher, S. (1998). Treatment of posttraumatic stress disorder by exposure and/or cognitive restructuring: a controlled study. *Arch Gen Psychiatry, 55*(4), 317-325.

Marmar, C. R., McCaslin, S. E., Metzler, T. J., Best, S., Weiss, D. S., Fagan, J., et al. (2006). Predictors of posttraumatic stress in police and other first responders. *Ann N Y Acad Sci, 1071*, 1-18.

Marshall, G. N., Schell, T. L., Elliott, M. N., Berthold, S. M., & Chun, C. A. (2005). Mental health of Cambodian refugees 2 decades after resettlement in the United States. *Jama, 294*(5), 571-579.

Martenyi, F., & Soldatenkova, V. (2005). Fluoxetine in the acute treatment and relapse prevention of combat-related post-traumatic stress disorder: Analysis of the veteran group of a placebo-controlled, randomized clinical trial. *Eur Neuropsychopharmacol*.

Marusic, A., Kozaric-Kovacic, D., Folnegovic-Smalc, V., Ljubin, T., Zrncic, A., & Ljubin, S. (1995). Use of two PTSD scales assessing posttraumatic stress disorder in refugees and displaced persons from Bosnia and Herzegovina and Croatia. *Psychologische Beiträge, Band 37*, 209-214.

McCann, I. L., & Pearlman, L. A. (1990). *Psychological trauma and the adult survivor: Theory, therapy and transformation*. New York: Brunner/Mazel.

McCrone, P., Bhui, K., Craig, T., Mohamud, S., Warfa, N., Stansfeld, S. A., et al. (2005). Mental health needs, service use and costs among Somali refugees in the UK. *Acta Psychiatr Scand, 111*(5), 351-357.

McNally, R. J. (1999). EMDR and Mesmerism: a comparative historical analysis. *J Anxiety Disord, 13*(1-2), 225-236.

Meichenbaum, D. (1975). Self-instructional methods. In Kanfer, F. H. & Goldstein, A. P. (Eds.), *Helping People Change* (pp. 357-391). New York: Pergamon.

Mezzich, J. E. (2002). International surveys on the use of ICD-10 and related diagnostic systems. *Psychopathology, 35*(2-3), 72-75.

Miller, G. A., Elbert, T., & Rockstroh, B. (2005). Judging psychiatric disorders in refugees. *Lancet, 366*(9497), 1604-1605; author reply 1605.

Miller, K. E., Weine, S. M., Ramic, A., Brkic, N., Bjedic, Z. D., Smajkic, A., et al. (2002). The relative contribution of war experiences and exile-related stressors to levels of psychological distress among Bosnian refugees. *J Trauma Stress, 15*(5), 377-387.

Minas, H. (2001). Service responses to cultural diversity. In Thornicraft, G. & Szmukler, G. (Eds.), *Textbook of Community Psychiatry* (pp. 192-206). Oxford: Oxford University Press.

Moisander, P. A., & Edston, E. (2003). Torture and its sequel--a comparison between victims from six countries. *Forensic Sci Int, 137*(2-3), 133-140.

Mollica, R. F., McInnes, K., Pham, T., Smith Fawzi, M. C., Murphy, E., & Lin, L. (1998a). The dose-effect relationships between torture and psychiatric symptoms in Vietnamese ex-political detainees and a comparison group. *J Nerv Ment Dis, 186*(9), 543-553.

Mollica, R. F., McInnes, K., Poole, C., & Tor, S. (1998b). Dose-effect relationships of trauma to symptoms of depression and post-traumatic stress disorder among Cambodian survivors of mass violence. *Br J Psychiatry, 173*, 482-488.

Mollica, R. F., McInnes, K., Sarajlic, N., Lavelle, J., Sarajlic, I., & Massagli, M. P. (1999). Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia. *Jama, 282*(5), 433-439.

Mollica, R. F., Sarajlic, N., Chernoff, M., Lavelle, J., Vukovic, I. S., & Massagli, M. P. (2001). Longitudinal study of psychiatric symptoms, disability, mortality, and emigration among Bosnian refugees. *Jama, 286*(5), 546-554.

Momartin, S., Silove, D., Manicavasagar, V., & Steel, Z. (2003). Dimensions of trauma associated with posttraumatic stress disorder (PTSD) caseness, severity and functional impairment: a study of Bosnian refugees resettled in Australia. *Soc Sci Med, 57*(5), 775-781.

Momartin, S., Silove, D., Manicavasagar, V., & Steel, Z. (2004). Comorbidity of PTSD and depression: associations with trauma exposure, symptom severity and functional impairment in Bosnian refugees resettled in Australia. *J Affect Disord, 80*(2-3), 231-238.

Morrison, K. H., Bradley, R., & Westen, D. (2003). The external validity of controlled clinical trials of psychotherapy for depression and anxiety: a naturalistic study. *Psychol Psychother, 76*(Pt 2), 109-132.

Mueser, K. T., Goodman, L. B., Trumbetta, S. L., Rosenberg, S. D., Osher, C., Vidaver, R., et al. (1998). Trauma and posttraumatic stress disorder in severe mental illness. *J Consult Clin Psychol, 66*(3), 493-499.

Munro, C. G., Freeman, C. P., & Law, R. (2004). General practitioners' knowledge of posttraumatic stress disorder: a controlled study. *Br J Gen Pract, 54*(508), 843-847.

Naeem, F., Mufti, K. A., Ayub, M., Haroon, A., Saifi, F., Qureshi, S. M., et al. (2005). Psychiatric morbidity among Afghan refugees in Peshawar, Pakistan. *J Ayub Med Coll Abbottabad, 17*(2), 23-25.

Najavits, L. M., Schmitz, M., Gotthardt, S., & Weiss, R. D. (2005). Seeking Safety plus Exposure Therapy: an outcome study on dual diagnosis men. *J Psychoactive Drugs, 37*(4), 425-435.

Nemeroff, C. B., Bremner, J. D., Foa, E. B., Mayberg, H. S., North, C. S., & Stein, M. B. (2005). Posttraumatic stress disorder: A state-of-the-science review. *J Psychiatr Res*.

Neuner, F. (2003). Epidemiology and Treatment of Posttraumatic Stress Disorder in West-Nile Populations of Sudan and Uganda. Retrieved 11.08.2005, from http://www.ub.uni-konstanz.de/kops/volltexte/2003/1082/

Neuner, F., Schauer, M., Elbert, T., & Roth, W. T. (2002). A narrative exposure treatment as intervention in a Macedonia's refugee camp: a case report. *Behav Cogn Psychother, 30*, 205-209.

Neuner, F., Schauer, M., Karunakara, U., Klaschik, C., Robert, C., & Elbert, T. (2004a). Psychological trauma and evidence for enhanced vulnerability for posttraumatic stress disorder through previous trauma among West Nile refugees. *BMC Psychiatry, 4*(1), 34.

Neuner, F., Schauer, M., Klaschik, C., Karunakara, U., & Elbert, T. (2004b). A comparison of narrative exposure therapy, supportive counseling, and psychoeducation for treating posttraumatic stress disorder in an african refugee settlement. *J Consult Clin Psychol, 72*(4), 579-587.

NICE. (2005). *The management of post traumatic stress disorder in primary and secondary care*. London: NICE.

Nicholl, C., & Thompson, A. (2004). The psychological treatment of Post Traumatic Stress Disorder (PTSD) in adult refugees: A review of the current state of psychological therapies. *Journal of Mental Health, 13*(4), 351-362.

Nishith, P., Nixon, R. D., & Resick, P. A. (2005). Resolution of trauma-related guilt following treatment of PTSD in female rape victims: a result of cognitive processing therapy targeting comorbid depression? *J Affect Disord, 86*(2-3), 259-265.

Norredam, M., Crosby, S., Munarriz, R., Piwowarczyk, L., & Grodin, M. (2005). Urologic complications of sexual trauma among male survivors of torture. *Urology, 65*(1), 28-32.

North, C. S., Kawasaki, A., Spitznagel, E. L., & Hong, B. A. (2004). The course of PTSD, major depression, substance abuse, and somatization after a natural disaster. *J Nerv Ment Dis, 192*(12), 823-829.

Ohayon, M. M., & Lader, M. H. (2002). Use of psychotropic medication in the general population of France, Germany, Italy, and the United Kingdom. *J Clin Psychiatry, 63*(9), 817-825.

Onder, E., Tural, U., & Aker, T. (2005). A comparative study of fluoxetine, moclobemide, and tianeptine in the treatment of posttraumatic stress disorder following an earthquake. *Eur Psychiatry*.

Onyut, L. P. (2006). *Setting up mental health provision by building local capacity: the cases of Nakivale: epidemiological and treatment outcomes.* Universität Konstanz, Konstanz.

Onyut, L. P., Neuner, F., Schauer, E., Ertl, V., Odenwald, M., Schauer, M., et al. (2005). Narrative Exposure Therapy as a treatment for child war survivors with posttraumatic stress disorder: two case reports and a pilot study in an African refugee settlement. *BMC Psychiatry, 5*(1), 7.

Otto, M. W., Hinton, D., Korbly, N. B., Chea, A., Ba, P., Gershuny, B. S., et al. (2003). Treatment of pharmacotherapy-refractory posttraumatic stress disorder among Cambodian refugees: a pilot study of combination treatment with cognitive-behavior therapy vs. sertraline alone. *Behav Res Ther, 41*(11), 1271-1276.

Ozer, E. J., Best, S. R., Lipsey, T. L., & Weiss, D. S. (2003). Predictors of posttraumatic stress disorder and symptoms in adults: a meta-analysis. *Psychol Bull, 129*(1), 52-73.

Paunovic, N., & Ost, L. G. (2001). Cognitive-behavior therapy vs. exposure therapy in the treatment of PTSD in refugees. *Behav Res Ther, 39*(10), 1183-1197.

Pedersen, D. (2002). Political violence, ethnic conflict, and contemporary wars: broad implications for health and social well-being. *Soc Sci Med, 55*(2), 175-190.

Pelcovitz, D., van der Kolk, B., Roth, S., Mandel, F., Kaplan, S., & Resick, P. (1997). Development of a criteria set and a structured interview for disorders of extreme stress (SIDES). *J Trauma Stress, 10*(1), 3-16.

Perkonigg, A., Kessler, R. C., Storz, S., & Wittchen, H. U. (2000). Traumatic events and posttraumatic stress disorder in the community: prevalence, risk factors and comorbidity. *Acta Psychiatr Scand, 101*(1), 46-59.

Perkonigg, A., Pfister, H., Stein, M. B., Hofler, M., Lieb, R., Maercker, A., et al. (2005). Longitudinal course of posttraumatic stress disorder and posttraumatic stress disorder symptoms in a community sample of adolescents and young adults. *Am J Psychiatry, 162*(7), 1320-1327.

Peters, L., Slade, T., & Andrews, G. (1999). A comparison of ICD10 and DSM-IV criteria for posttraumatic stress disorder. *J Trauma Stress, 12*(2), 335-343.

Pini, S., Perkonnig, A., Tansella, M., Wittchen, H. U., & Psich, D. (1999). Prevalence and 12-month outcome of threshold and subthreshold mental disorders in primary care. *J Affect Disord, 56*(1), 37-48.

Port, C. L., Engdahl, B., & Frazier, P. (2001). A longitudinal and retrospective study of PTSD among older prisoners of war. *Am J Psychiatry, 158*(9), 1474-1479.

Porter, M., & Haslam, N. (2005). Predisplacement and Postdisplacement Factors Associated With Mental Health of Refugees and Internally Displaced Persons. *Jama, 294*(5), 602-612.

Price, J. L., Monson, C. M., Callahan, K., & Rodriguez, B. F. (2006). The role of emotional functioning in military-related PTSD and its treatment. *J Anxiety Disord, 20*(5), 661-674.

Pro Asyl. (2004). Das Zuwanderungsgesetz - Überblick über die wichtigsten Neuregelungen im Zuwanderungsgesetz. Retrieved August 09, 2006, from http://www.proasyl.de/texte/gesetze/brd/zuwanderungsgesetz/positionen/proasyl0904.pdf

PROCR. (2003). *Zusammenfassender Bericht des Projektzeitraums 2002-2003*. Konstanz: Psychotrauma Research and Outpatient Clinic for Refugees, University of Konstanz.

PROCR. (2004). *Jahresbericht Dezember 2003 - November 2004*. Konstanz: Psychotrauma Research and Outpatient Clinic for Refugees, University of Konstanz.

Quiroga, J., & Gurr, R. (1998). *Approaches to Torture Rehabilitation: A desk-study, covering effects, cost effectiveness, participation and sustainability*: Human Rights Consultancy.

Ramsay, R., Gorst-Unsworth, C., & Turner, S. (1993). Psychiatric morbidity in survivors of organized state violence including torture. A retrospective series. *Br J Psychiatry, 162*, 55-59.

Recupero, P. R., Brown, P. J., & R., S. (1994, May 25). *Traumatic exposure and PTSD symptomatology among substance abusers.* Paper presented at the 147th Annual Meeting of the American Psychiatric Association, Philadelphia.

Reddemann, L., & Sachsse, U. (2000). Traumazentrierte imaginative Therapie. In Egle, U. T., Hoffmann, S. O. & Joraschky, P. (Eds.), *Sexueller Mißbrauch, Mißhandlung, Vernachlässigung* (2 ed., pp. 375-389). Stuttgart: Schattauer.

Reijneveld, S. A., de Boer, J. B., Bean, T., & Korfker, D. G. (2005). Unaccompanied adolescents seeking asylum: poorer mental health under a restrictive reception. *J Nerv Ment Dis, 193*(11), 759-761.

Resick, P. A., Nishith, P., & Griffin, M. G. (2003). How well does cognitive-behavioral therapy treat symptoms of complex PTSD? An examination of child sexual abuse survivors within a clinical trial. *CNS Spectr, 8*(5), 340-355.

Resick, P. A., Nishith, P., Weaver, T. L., Astin, M. C., & Feuer, C. A. (2002). A comparison of cognitive-processing therapy with prolonged exposure and a waiting condition for the treatment of chronic posttraumatic stress disorder in female rape victims. *J Consult Clin Psychol, 70*(4), 867-879.

Resick, P. A., & Schnicke, M. K. (1992). Cognitive processing therapy for sexual assault victims. *J Consult Clin Psychol, 60*(5), 748-756.

Resnick, H. S., Kilpatrick, D. G., Dansky, B. S., Saunders, B. E., & Best, C. L. (1993). Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. *J Consult Clin Psychol, 61*(6), 984-991.

Ringold, S., Burke, A., & Glass, R. M. (2005). JAMA patient page. Refugee mental health. *Jama, 294*(5), 646.

Robertson, M., Humphreys, L., & Ray, R. (2004). Psychological treatments for posttraumatic stress disorder: recommendations for the clinician based on a review of the literature. *J Psychiatr Pract, 10*(2), 106-118.

Rodriguez, B. F., Weisberg, R. B., Pagano, M. E., Machan, J. T., Culpepper, L., & Keller, M. B. (2003). Mental health treatment received by primary care patients with posttraumatic stress disorder. *J Clin Psychiatry, 64*(10), 1230-1236.

Rosen, C. S., Chow, H. C., Finney, J. F., Greenbaum, M. A., Moos, R. H., Sheikh, J. I., et al. (2004). VA practice patterns and practice guidelines for treating posttraumatic stress disorder. *J Trauma Stress, 17*(3), 213-222.

Rosenman, S. (2002). Trauma and posttraumatic stress disorder in Australia: findings in the population sample of the Australian National Survey of Mental Health and Wellbeing. *Aust N Z J Psychiatry, 36*(4), 515-520.

Roth, A., & Fonagy, P. (1996). *What works for whom? A critical review of psychotherapy research*. New York: Guilford Press.

Rothbaum, B. O., Astin, M. C., & Marsteller, F. (2005). Prolonged Exposure versus Eye Movement Desensitization and Reprocessing (EMDR) for PTSD rape victims. *J Trauma Stress, 18*(6), 607-616.

Rothbaum, B. O., & Foa, E. B. (1993). Subtypes of posttraumatic stress disorder and duration of symptoms. In Davidson, J. R. T. F. (Ed.), *Posttraumatic Stress Disorder: DSM-IV and beyond* (pp. 23-35). Washington, DC: American Psychiatric Press.

Sabin, M., Lopes Cardozo, B., Nackerud, L., Kaiser, R., & Varese, L. (2003). Factors associated with poor mental health among Guatemalan refugees living in Mexico 20 years after civil conflict. *Jama, 290*(5), 635-642.

Sachsse, U., Vogel, C., & Leichsenring, F. (2006). Results of psychodynamically oriented trauma-focused inpatient treatment for women with complex posttraumatic stress disorder (PTSD) and borderline personality disorder (BPD). *Bulletin of the Menninger Clinic, 70*(2), 125-144.

Sack, W. H., Him, C., & Dickason, D. (1999). Twelve-year follow-up study of Khmer youths who suffered massive war trauma as children. *J Am Acad Child Adolesc Psychiatry, 38*(9), 1173-1179.

Schauer, M., Neuner, F., & Elbert, T. (2005). *Narrative Exposure Therapy: A Short-Term Intervention for Traumatic Stress Disorders after War, Terror, and Torture*. Göttingen: Hogrefe & Huber Publishers.

Schmeling-Kludas, C., Froschlin, R., & Boll-Klatt, A. (2003). [Inpatient psychosomatic rehabilitation for Turkish migrants: what can be realized, what are the effects?]. *Rehabilitation (Stuttg), 42*(6), 363-370.

Schoenwald, S. K., & Hoagwood, K. (2001). Effectiveness, transportability, and dissemination of interventions: what matters when? *Psychiatr Serv, 52*(9), 1190-1197.

Schouler-Ocak, M. (2003). Psychiatrische Regeldienste und multikulturelle Realität. *psychoneuro, 29*(12), 582-585.

Seidler, G. H. (2002). [Psychotraumatology: Recent therapy approaches]. *Z Psychosom Med Psychother, 48*(1), 6-27.

Shalev, A. Y., Bonne, O., & Eth, S. (1996). Treatment of posttraumatic stress disorder: a review. *Psychosom Med, 58*(2), 165-182.

Shalev, A. Y., Freedman, S., Peri, T., Brandes, D., Sahar, T., Orr, S. P., et al. (1998). Prospective study of posttraumatic stress disorder and depression following trauma. *Am J Psychiatry, 155*(5), 630-637.

Shapiro, F. (1989). Eye movement desensitization: a new treatment for post-traumatic stress disorder. *J Behav Ther Exp Psychiatry, 20*(3), 211-217.

Shapiro, F. (1995). *Eye Movement Desensitization and Reprocessing: Basic Principles, Protocols, and Procedures.* New York: Guilford.

Shapiro, F., & Maxfield, L. (2002). Eye Movement Desensitization and Reprocessing (EMDR): information processing in the treatment of trauma. *J Clin Psychol, 58*(8), 933-946.

Sheehan, D. V., Lecrubier, Y., Sheehan, K. H., Amorim, P., Janavs, J., Weiller, E., et al. (1998). The Mini-International Neuropsychiatric Interview (M.I.N.I.): the development and validation of a structured diagnostic psychiatric interview for DSM-IV and ICD-10. *J Clin Psychiatry, 59 Suppl 20*, 22-33;quiz 34-57.

Sher, L. (2005a). The concept of post-traumatic mood disorder. *Med Hypotheses, 65*(2), 205-210.

Sher, L. (2005b). Posttraumatic mood disorder: a new concept. *Can J Psychiatry, 50*(2), 127-128.

Shore, J. H., Vollmer, W. M., & Tatum, E. L. (1989). Community patterns of posttraumatic stress disorders. *J Nerv Ment Dis, 177*(11), 681-685.

Shrestha, N. M., Sharma, B., Van Ommeren, M., Regmi, S., Makaju, R., Komproe, I., et al. (1998). Impact of torture on refugees displaced within the developing world: symptomatology among Bhutanese refugees in Nepal. *Jama, 280*(5), 443-448.

Silove, D. (1999). The psychosocial effects of torture, mass human rights violations, and refugee trauma: toward an integrated conceptual framework. *J Nerv Ment Dis, 187*(4), 200-207.

Silove, D. (2002). The asylum debacle in Australia: a challenge for psychiatry. *Aust N Z J Psychiatry, 36*(3), 290-296.

Silove, D., Sinnerbrink, I., Field, A., Manicavasagar, V., & Steel, Z. (1997). Anxiety, depression and PTSD in asylum-seekers: associations with pre-migration trauma and post-migration stressors. *Br J Psychiatry, 170*, 351-357.

Silove, D., Steel, Z., McGorry, P., & Drobny, J. (1999). Problems Tamil asylum seekers encounter in accessing health and welfare services in Australia. *Soc Sci Med, 49*(7), 951-956.

Silove, D., Steel, Z., McGorry, P., Miles, V., & Drobny, J. (2002). The impact of torture on post-traumatic stress symptoms in war-affected Tamil refugees and immigrants. *Compr Psychiatry, 43*(1), 49-55.

Silove, D., Steel, Z., & Watters, C. (2000). Policies of deterrence and the mental health of asylum seekers. *Jama, 284*(5), 604-611.

Sinnerbrink, I., Silove, D., Field, A., Steel, Z., & Manicavasagar, V. (1997). Compounding of premigration trauma and postmigration stress in asylum seekers. *J Psychol, 131*(5), 463-470.

Sinnerbrink, I., Silove, D. M., Manicavasagar, V. L., Steel, Z., & Field, A. (1996). Asylum seekers: general health status and problems with access to health care. *Med J Aust, 165*(11-12), 634-637.

Smith Fawzi, M. C., Murphy, E., Pham, T., Lin, L., Poole, C., & Mollica, R. F. (1997). The validity of screening for post-traumatic stress disorder and major depression among Vietnamese former political prisoners. *Acta Psychiatr Scand, 95*(2), 87-93.

Solomon, S. D., & Johnson, D. M. (2002). Psychosocial treatment of posttraumatic stress disorder: a practice-friendly review of outcome research. *J Clin Psychol, 58*(8), 947-959.

Solomon, Z., & Dekel, R. (2005). Posttraumatic stress disorder among Israeli ex-prisoners of war 18 and 30 years after release. *J Clin Psychiatry, 66*(8), 1031-1037.

Somnier, F. E., Vesti, P., Kastrupp, M., & Kemp Genefke, I. (1992). Psycho-social consequences of torture: current knowledge and evidence. In Basoglu, M. (Ed.), *Torture and its consequences: current treatment approaches* (pp. 56-71). New York: Cambridge University Press.

Sondergaard, H. P., & Theorell, T. (2004). Language acquisition in relation to cumulative posttraumatic stress disorder symptom load over time in a sample of re-settled refugees. *Psychother Psychosom, 73*(5), 320-323.

Spinazzola, J., Blaustein, M., & van der Kolk, B. A. (2005). Posttraumatic stress disorder treatment outcome research: The study of unrepresentative samples? *J Trauma Stress, 18*(5), 425-436.

Spiro, A., 3rd, Hankin, C. S., Mansell, D., & Kazis, L. E. (2006). Posttraumatic Stress Disorder and Health Status: The Veterans Health Study. *J Ambul Care Manage, 29*(1), 71-86.

Spranger, H. (2003). Kriegstraumatisierte Menschen im Konfliktfeld zwischen Behörden, Gutachtern und Therapeuten. *ZPPM, 1*(4), 33-40.

Staub, E. (1999). The roots of evil: social conditions, culture, personality, and basic human needs. *Pers Soc Psychol Rev, 3*(3), 179-192.

Steel, Z., Momartin, S., Bateman, C., Hafshejani, A., Silove, D. M., Everson, N., et al. (2004). Psychiatric status of asylum seeker families held for a protracted period in a remote detention centre in Australia. *Aust N Z J Public Health, 28*(6), 527-536.

Steel, Z., Silove, D., Bird, K., McGorry, P., & Mohan, P. (1999). Pathways from war trauma to posttraumatic stress symptoms among Tamil asylum seekers, refugees, and immigrants. *J Trauma Stress, 12*(3), 421-435.

Steel, Z., Silove, D., Chey, T., Bauman, A., Phan, T., & Phan, T. (2005). Mental disorders, disability and health service use amongst Vietnamese refugees and the host Australian population. *Acta Psychiatr Scand, 111*(4), 300-309.

Steel, Z., Silove, D., Phan, T., & Bauman, A. (2002). Long-term effect of psychological trauma on the mental health of Vietnamese refugees resettled in Australia: a population-based study. *Lancet, 360*(9339), 1056-1062.

Steel, Z., & Silove, D. M. (2001). The mental health implications of detaining asylum seekers. *Med J Aust, 175*(11-12), 596-599.

Stirman, S. W., DeRubeis, R. J., Crits-Christoph, P., & Rothman, A. (2005). Can The Randomized Controlled Trial Literature Generalize to Nonrandomized Patients? *J Consult Clin Psychol, 73*(1), 127-135.

Strous, R. D., Weiss, M., Felsen, I., Finkel, B., Melamed, Y., Bleich, A., et al. (2005). Video testimony of long-term hospitalized psychiatrically ill holocaust survivors. *Am J Psychiatry, 162*(12), 2287-2294.

Sultan, A., & O'Sullivan, K. (2001). Psychological disturbances in asylum seekers held in long term detention: a participant-observer account. *Med J Aust, 175*(11-12), 593-596.

Summerfield, D. A. (1997). Legacy of war: beyond "trauma" to the social fabric. *Lancet, 349*(9065), 1568.

Summerfield, D. A. (2005). Coping with the aftermath of trauma: NICE guidelines on posttraumatic stress disorder have fundamental flaw. *Bmj, 331*(7507), 50; author reply 50.

Sundquist, J., & Johansson, S. E. (1996). The influence of exile and repatriation on mental and physical health: A population-based study. *Soc Psychiatry Psychiatr Epidemiol, 31*, 21-28.

Tagay, S., Herpertz, S., Langkafel, M., & Senf, W. (2005). Posttraumatic stress disorder in a psychosomatic outpatient clinic Gender effects, psychosocial functioning, sense of coherence, and service utilization. *J Psychosom Res, 58*(5), 439-446.

Tarrier, N., Pilgrim, H., Sommerfield, C., Faragher, B., Reynolds, M., Graham, E., et al. (1999a). A randomized trial of cognitive therapy and imaginal exposure in the treatment of chronic posttraumatic stress disorder. *J Consult Clin Psychol, 67*(1), 13-18.

Tarrier, N., Sommerfield, C., Pilgrim, H., & Humphreys, L. (1999b). Cognitive therapy or imaginal exposure in the treatment of post-traumatic stress disorder. Twelve-month follow-up. *Br J Psychiatry, 175*, 571-575.

Taylor, S., Thordarson, D. S., Maxfield, L., Fedoroff, I. C., Lovell, K., & Ogrodniczuk, J. (2003). Comparative efficacy, speed, and adverse effects of three PTSD treatments: exposure therapy, EMDR, and relaxation training. *J Consult Clin Psychol, 71*(2), 330-338.

Terheggen, M. A., Stroebe, M. S., & Kleber, R. J. (2001). Western conceptualizations and Eastern experience: a cross-cultural study of traumatic stress reactions among Tibetan refugees in India. *J Trauma Stress, 14*(2), 391-403.

Thompson, M., McGorry, P., Silove, D., & Steel, Z. (1998). Maribyrnong Detention Centre Tamil Survey. In Silove, D. & Steel, Z. (Eds.), *The mental health and well-being of on-shore asylum seekers in Australia* (pp. 27-31). Sydney: Psychiatry Research & Teaching Unit.

Tiemens, B. G., Ormel, J., & Simon, G. E. (1996). Occurrence, recognition, and outcome of psychological disorders in primary care. *Am J Psychiatry, 153*(5), 636-644.

Tress, W., Kruse, J., Heckrath, C., Schmitz, N., & Alberti, L. (1997). [Psychogenic Disorders in Primary Care]. *Zsch. psychosom. Med., 43*, 211-232.

Triffleman, E. G., Marmar, C. R., Delucchi, K. L., & Ronfeldt, H. (1995). Childhood trauma and posttraumatic stress disorder in substance abuse inpatients. *J Nerv Ment Dis, 183*(3), 172-176.

Turnbull, G. J. (1998). A review of post-traumatic stress disorder. Part I: Historical development and classification. *Injury, 29*(2), 87-91.

Turner, S. W., Bowie, C., Dunn, G., Shapo, L., & Yule, W. (2003). Mental health of Kosovan Albanian refugees in the UK. *Br J Psychiatry, 182*, 444-448.

U.S. Committee for Refugees. (2005). world refugee survey. Retrieved 1 September 2005, from http://www.refugees.org/uploadedFiles/Investigate/Publications_&_Archives/WRS_Archives/2005/key_statistics.pdf

UN. (1984). Convention against Torture and Other Crueal, Inhuman or Degrading Treatment or Punishment. Retrieved 12 August 2005, from http://www.unhchr.ch/html/menu3/b/h_cat39.htm

UNCHR. (2005a). *2004 Global Refugee Trends*. Geneva.

UNHCR. (2002). Optional Protocol to the Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. Retrieved 12 August 2005, from http://www.unhchr.ch/html/menu2/6/cat/treaties/opcat.htm

UNHCR. (2004). *2003 Global Refugee Trends*. Geneva: UNHCR.

UNHCR. (2005b). States Parties to the 1951 Convention relating to the Status of Refugees and the 1967 Protocol. Retrieved 30 August 05, from http://www.unhcr.ch/cgi-bin/texis/vtx/protect/opendoc.pdf?tbl=PROTECTION&id=3b73b0d63

van der Kolk, B. A., McFarlane, A. C., & van der Hart, O. (1996). A General Approach to Treatment of Posttraumatic Stress Disorder. In van der Kolk, B. A., McFarlane, A. C. & Weisaeth, L. (Eds.), *Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body, and Society*. New York: Guilford Press.

van der Kolk, B. A., Pelcovitz, D., Roth, S., Mandel, F. S., McFarlane, A., & Herman, J. L. (1996). Dissociation, somatization, and affect dysregulation: the complexity of adaptation of trauma. *Am J Psychiatry, 153*(7 Suppl), 83-93.

van Dijk, J. A., Schoutrop, M. J., & Spinhoven, P. (2003). Testimony therapy: treatment method for traumatized victims of organized violence. *Am J Psychother, 57*(3), 361-373.

Van Etten, M. L., & Taylor, S. (1998). Comparative Efficacy of Treatments for Posttraumatic Stress Disorder: a meta-analysis. *Clin Psychol Psychother, 5*, 126-144.

Van Ommeren, M., de Jong, J. T., Sharma, B., Komproe, I., Thapa, S. B., & Cardena, E. (2001a). Psychiatric disorders among tortured Bhutanese refugees in Nepal. *Arch Gen Psychiatry, 58*(5), 475-482.

Van Ommeren, M., Sharma, B., Komproe, Poudyal, B. N., Sharma, G. K., Cardena, E., et al. (2001b). Trauma and loss as determinants of medically unexplained epidemic illness in a Bhutanese refugee camp. *Psychol Med, 31*(7), 1259-1267.

Van Ommeren, M., Sharma, B., Sharma, G. K., Komproe, I., Cardena, E., & de Jong, J. T. (2002). The relationship between somatic and PTSD symptoms among Bhutanese refugee torture survivors: examination of comorbidity with anxiety and depression. *J Trauma Stress, 15*(5), 415-421.

Van Velsen, C., Gorst-Unsworth, C., & Turner, S. (1996). Survivors of torture and organized violence: demography and diagnosis. *J Trauma Stress, 9*(2), 181-193.

van Willigen, L. H., Hondius, A. J., & van der Ploeg, H. M. (1995). Health problems of refugees in The Netherlands. *Trop Geogr Med, 47*(3), 118-124.

Vessey, J. T., & Howard, K. I. (1993). Who seeks psychotherapy? *Psychotherapy, 30*, 546-553.

Vesti, P., Somnier, F., Kastrup, M. (1992). *Psychotherapy with torture survivors*. Copenhagen: IRCT.

Wang, P. S., Berglund, P., & Kessler, R. C. (2000a). Recent care of common mental disorders in the United States: prevalence and conformance with evidence-based recommendations. *J Gen Intern Med, 15*(5), 284-292.

Wang, P. S., Gilman, S. E., Guardino, M., Christiana, J. M., Morselli, P. L., Mickelson, K., et al. (2000b). Initiation of and adherence to treatment for mental disorders: examination of patient advocate group members in 11 countries. *Med Care, 38*(9), 926-936.

Waugaman, R. M., & Waugaman, A. (2005). Review of: Broken Spirits: The Treatment of Traumatized Asylum Seekers, Refugees, and War and Torture Victims. *Am J Psychiatry, 162*(9), 1768-1769.

Waysman, M., Schwarzwald, J., & Solomon, Z. (2001). Hardiness: an examination of its relationship with positive and negative long term changes following trauma. *J Trauma Stress, 14*(3), 531-548.

Weine, S., & Laub, D. (1995). Narrative constructions of historical realities in testimony with Bosnian survivors of "ethnic cleansing". *Psychiatry, 58*(3), 246-260.

Weine, S. M., Kulenovic, A. D., Pavkovic, I., & Gibbons, R. (1998a). Testimony psychotherapy in Bosnian refugees: a pilot study. *Am J Psychiatry, 155*(12), 1720-1726.

Weine, S. M., Razzano, L., Brkic, N., Ramic, A., Miller, K., Smajkic, A., et al. (2000). Profiling the trauma related symptoms of Bosnian refugees who have not sought mental health services. *J Nerv Ment Dis, 188*(7), 416-421.

Weine, S. M., Vojvoda, D., Becker, D. F., McGlashan, T. H., Hodzic, E., Laub, D., et al. (1998b). PTSD symptoms in Bosnian refugees 1 year after resettlement in the United States. *Am J Psychiatry, 155*(4), 562-564.

Weiss, D. S., & Maramar, C. R. (1997). Impact of Event Scale - Revised. In Wilson, J. P. & Keane, T. M. (Eds.), *Assessing psychological trauma and PTSD* (pp. 399-411). New York: The Guilford Press.

Weyerer, S., & Dilling, H. (1991). Psychiatric and physical illness, sociodemographic characteristics, and the use of psychotropic drugs in the community: results from the Upper Bavarian Field Study. *J Clin Epidemiol, 44*(3), 303-311.

WHO. (1978). *The ICD-9 Classification of Mental and Behavioural Diseases*. Geneva: WHO.

WHO. (1992). *The ICD-10 Classification of Mental and Behavioural Disorders*. Geneva: WHO.

WHO. (1997). Composite International Diagnostic Interview (CIDI).

WHO Global Consultation on Violence and Health. (1996). *Violence: a public health priority.* Geneva: WHO/EHA/SPI.POA.2.

Wilson, G. T. (1997). Treatment manuals in clinical practice. *Behav Res Ther, 35*(3), 205-210.

Wilson, J. P., & Drozdek, B. (Eds.). (2004). *Broken Spirits: The Treatment of Traumatized Asylum Seekers, Refugees, and War and Torture Victims*. New York: Brunner-Routledge.

Wittchen, H. U., Kessler, R. C., Pfister, H., & Lieb, M. (2000). Why do people with anxiety disorders become depressed? A prospective-longitudinal community study. *Acta Psychiatr Scand Suppl*(406), 14-23.

Wrangham, R. W., & Wilson, M. L. (2004). Collective Violence: Comparisons between Youths and Chimpanzees. *Ann N Y Acad Sci, 1036*, 233-256.

Yehuda, R. (1999). Biological factors associated with susceptibility to posttraumatic stress disorder. *Can J Psychiatry, 44*(1), 34-39.

Young, K. (1991). Sport and collective violence. *Exerc Sport Sci Rev, 19*, 539-586.

Zatzick, D. F., Marmar, C. R., Weiss, D. S., & Metzler, T. (1994). Does trauma-linked dissociation vary across ethnic groups? *J Nerv Ment Dis, 182*(10), 576-582.

Zayfert, C., Deviva, J. C., Becker, C. B., Pike, J. L., Gillock, K. L., & Hayes, S. A. (2005). Exposure utilization and completion of cognitive behavioral therapy for PTSD in a "real world" clinical practice. *J Trauma Stress, 18*(6), 637-645.

Zoellner, L. A., Feeny, N. C., Cochran, B., & Pruitt, L. (2003). Treatment choice for PTSD. *Behav Res Ther, 41*(8), 879-886.