Using the International Classification of Functioning, Disability and Health (ICF) to describe the functioning of traumatised refugees

Ulrik Jørgensen, Psych, Hanne Melchiorsen, MPH**, Annemarie Graae Gottlieb, Psych***, Vibeke Hallas**** & Claus Vinther Nielsen, MD, PhD**

Abstract
The aim of this project was to use the International Classification of Functioning, Disability and Health (ICF) to develop an interdisciplinary instrument consisting of a Core Set, a number of codes selected from ICF, to describe the overall health condition of traumatised refugees. We intended to test 1) whether this tool could prove suitable for an overall description of the functional abilities of traumatised refugees before, during and after the intervention, and 2) whether the Core Set could be used to trace a significant change in the functional abilities of the traumatised refugees by comparing measurements before and after the intervention.

In 2007, eight rehabilitation centres for traumatised refugees in Denmarkb agreed on a joint project to develop a tool for interdisciplinary documentation and monitoring, including physical, mental and social aspects of the person's health condition. ICF, developed and approved by WHO in 2001, was found suitable because it offers a common and standardised language and a corresponding frame of reference to describe health and associated conditions in terms of functioning rather than symptoms and diagnosis.

Traumatised refugees are in most cases severely affected mentally by the traumas they have been subjected to, physically by injuries suffered during torture and war, psycho-somatically with pain, and socially by cultural uprooting, as well as by social difficulties in the exile community.

The rehabilitation perspective thus seems to be more meaningful than the traditional treatment perspective because it takes into account the very complex situation of this group.

The aim of the project was to find out whether any functional changes could be monitored using the instrument. The aim was neither to study nor to describe the effect of rehabilitation approaches, such as conditions related to traumatised refugees’ networks or environments that might affect the refugees’ living conditions. It was also not the intention to discuss the cause of the potential changes of the functional abilities.

The project selected a Comprehensive Core Set of 106 codes among 1,464 possible codes1 used by an interdisciplinary group of international and national experts in rehabilitation of trauma-

a) This article is based on the project report: ICF som dokumentation og monitoreringsredskab – anvendt til primært traumatiserede flygtninge [ICF as a documentation and monitoring tool applied on primary traumatised refugees]. Aarhus: MarselisborgCentret, 2009. The report is only available in Danish.

b) The eight rehabilitation centres were: Clinic for Traumatised Refugees, Vordingborg; Clinic for Traumatised Refugees, Aarhus; RCT, Fyn; RCF, Region North Jutland; RCT, Jutland; RCT, Copenhagen; OASIS and RIC, Horsens (RIC, Horsens, closed down before the start of the intervention phase). The pilot project ended up with seven centres.
tised refugees. The Comprehensive Core Set was furthermore reduced to a Brief Core Set of 32 codes by the interdisciplinary team (key persons) at the centres included in the project. From each centre six clients were randomly selected from those who fulfilled the inclusion criteria. All were scored within a four week period after the start, before any intervention was initiated, and up to a month after the first scoring.

The results from this project led us to the conclusion that it is possible to develop an instrument based on the ICF classification. The instrument is useful for a general description of the total health condition (physical and mental functional ability as well as the environmental impact) of traumatised refugees. The tool helps describe changes in the functional abilities used in connection with the preparation of the plan of action. It can also be used to describe the refugees included in the study and their general condition.

The ICF Core Set for traumatised refugees has not yet been validated, but the results of the project provide a basis for further development.

**Key words:** refugees, torture, trauma, body function, rehabilitation centres

**Introduction**

Among refugees in Denmark, 20 to 30% are traumatised because of torture, war, persecution and other kinds of organised violence or flight. It is estimated that approximately 50% of the Danish refugee population, equivalent to 55,000 refugees, are suffering from anxiety and depression. Of these, approximately 22,000 (20% of the entire population) fulfill the criteria for Posttraumatic Stress Disorder (PTSD).

The group of traumatized refugees is a complex target group with very different backgrounds. The nature, the number, and the duration of the traumas have affected the refugees both mentally and physically with symptoms such as fear, depression, sleep problems, and pain. Furthermore, many exiled refugees are affected by the living conditions in their new country, e.g., waiting times for political asylum or residence permits, and at the same time they have to adapt to a new culture, acquire a new language, and accept new norms. At the rehabilitation centres and clinics in Torture documentation inside detention centres in Denmark, refugees suffering from sequelae of the trauma of torture, war, flight, etc. are offered specialised rehabilitation and treatment. In order to be referred to the centres, the refugees must need an intervention beyond what the ordinary public social and health systems offer.

The intervention offered by the centres to the refugees is holistic based on the entire life situation, because not only the traumatic events, but also social factors, play a role in the range of symptoms and the prognosis.

This means that the intervention is interdisciplinary, including psychotherapy, physiotherapy, psychomotor treatment, examination and treatment by medical specialists, as well as social coordination and treatment. Some centres and clinics also offer educational rehabilitation.

The focus is on rehabilitation, defined as “a goal-oriented, cooperative process involving a member of the public, his/her relatives, and professionals over a certain period of time. The aim of this process is to ensure that the person in question, who has, or is at risk of having, seriously diminished physical, mental and social functions, can achieve independence and a meaningful life. Rehabilitation takes into account the person’s situation as a whole and the decisions he or she must make, and comprises coordinated, coherent, and knowledge based measures.”

Danish rehabilitation centres for traumatised refugees have for many years collaborated to find suitable tools to document the clients’ distress and monitor the outcome of the efforts of rehabilitation. Many centres agreed on implementing the Harvard
Trauma Questionnaire Revised (HTQ-R), but the implementation was not coordinated. Some of the centres have used other tools and methods.

Studies of the effect of rehabilitation on refugees’ health care have been very scarce. In a Health Technology Assessment (HTA) carried out by Region South of Denmark, existing studies up to 2008 were examined. Several outcome studies were conducted for treatment of PTSD. Few studies included populations with unspecified complex traumas (DESNOS).

Only two studies in the report targeted traumatised refugees living in exile in Western countries. Birck completed one study at BZFO in Berlin, while Carlsson et al. completed another study at the Rehabilitation and Research Centre for Torture Victims (RCT) in Copenhagen. Both studies used symptom-related rating scales, but Carlsson’s study also used a self-rating scale for quality of life. Neither study could prove any significant effect immediately after treatment, but Carlsson’s study showed a significant improvement 23 months after treatment started.

Similar to the HTA report, another study carried out in relation to this project concluded that the most frequently used instruments assessed PTSD symptoms, depression, and anxiety. Few studied quality of life as well, but none was related to the functional abilities of the clients. Not all instruments were validated with the refugee populations studied, which may have affected the results.

Generally speaking the results were few and sometimes negative. The studies were conducted using very different levels of evidence, and the interpretation of data was complicated because of differences in population, samples, and assessment methods. The selected studies showed that the effect of rehabilitation on improving the health participants’ conditions was limited.

The limited number of studies and their poor outcomes speaks for developing both rehabilitation methods adapted to the complexity of traumatised refugees and a measuring instrument which has a broad focus on health and disease. This requires an instrument that can measure both mental and somatic symptoms and also clarify how context affects ability to function. The former is a subject for method development at centres based on thorough research, and this project addresses the latter.

The population

The population for the Core Set developed by the project included both primary traumatised refugees and secondary traumatised refugees. Primary traumatised refugees are defined as: “Individuals who have been subjected to a traumatic experience in another country like a horror experience during war, civil war, political persecution, torture and other kinds of organised violence, which furthermore may have caused loss of closely related individuals, house and home, homeland, etc., which have led to serious mental, physical and social problems”. Secondary traumatised refugees are defined as: “Individuals who are living together with a primary traumatised person, so that the relationship in itself is threatening the mental, physical and social integrity of the person.”

The population selected for inclusion in the project is primary traumatised refugees ages 18 to 65 years old, who have been assessed and recommended for interdisciplinary rehabilitation including physiotherapist/psychomotor therapist, social worker and psychologist,

c) Disorder of Extreme Stress Not Otherwise Specified.
and for whom the interdisciplinary approach was planned to take place at least once a month with a social worker, and once a week with a psychologist and physiotherapist/psychomotor therapist.

**The method**

ICF can be used as a classification where the functioning is scored (coded) by selecting certain domains or categories from the different components of the classification. Gradients can be added to measure the degree of functional impairment.

The main purpose of the project was to develop an ICF Core Set for traumatised refugees. According to WHO, a Core set is a number of codes that are sufficient to describe the overall health condition for a certain group of patients. Usually three to 18 codes are considered sufficient for this purpose at the second level. However, more codes may be necessary for groups of patients with very complex symptoms and for specifying results of rehabilitation.1 The Core set should include as few categories as possible but be sufficient to provide a detailed, multidisciplinary description of the functioning and the patients’ impairment of functions.

For this purpose the Delphi technique was chosen. The Delphi technique is a structured communication process comprising four key characteristics: anonymity, repetition (including controlled feedback), statistical group response, and expert input. The Delphi technique has been used to develop other Core Sets, especially for somatic diseases.40, 41

Twelve experts were selected based on criteria for having 1) extensive experience in the rehabilitation of traumatised refugees, 2) neutrality by having no occupational relationship to any of the participating centres, and 3) representation from multiple disciplines. Two of the experts were from Austria and ten from Denmark. Two experts were physicians, three were physiotherapists, two were psychologists, one was a psychotherapist and four were social workers.

The Comprehensive Core Set was constructed through three rounds of selection by the twelve experts.2

*Delphi-round 1:* The experts opted out codes at the second level (362 codes), which they found irrelevant for the group of traumatised refugees. Codes opted out by all experts were subsequently removed from the set of codes.

*Delphi-round 2:* A form including the remaining codes was distributed to the experts. They were asked to answer yes or no whether the codes were relevant to the group of traumatised refugees. Their own answers from the first round were available for each of them as well as the answers from the other experts, but made anonymous. The share of experts who didn’t opt out the single code from the first round was noted in percentage.

*Delphi-round 3:* For the third Delphi-

d) The Delphi technique is a partial element of the Delphi method.

e) However, in the second round only ten of the experts answered.

f) First level comprised eight chapters within the component of “Body Functions”, eight chapters within the component of the anatomy of the body, nine chapters within the component of “activities and participation” and five chapters within the component of “environmental factors”, totaling 30 chapters. Each component was categorised in domains (chapters), which were practical and provided sets of connected physiological functions, anatomic structures, acts, tasks, and spheres of life (International Classification of Functioning, Disability and Health. WHO, 2001:215).
round, forms identical with those from the second round were distributed. The experts were again asked to answer yes or no as to whether they found the code relevant for the group of traumatised refugees. The experts could see their own answers as well as the answers from the other experts, but the answers were made anonymous. The share of experts who didn’t opt out the single code from the second round was noted in percentage.

After each Delphi-round, there was a consensus calculation including all codes with at least 80% consensus among the experts. The number of codes included in the Comprehensive Core Set was 106.

The Comprehensive Core Set included too many codes for practical use. Therefore a continuing process to further reduce the number of codes and to select a Brief Core Set was initiated in two phases:

Three key persons from each project centre’s interdisciplinary team selected codes, 80% or more included in the final brief Core Set of 32 codes.

To test the reliability of the scoring we planned to videotape clinical interviews with clients from the centres, each interdisciplinary team scoring clients with the Brief Core Set. However, for practical reasons this was not feasible. Instead, key persons acted as clients and, after intervention, scored the actors based on the role play video.

To measure functioning and disability, WHO recommends a common generic scale for quantification. The degree to which a code is problematic has gradients followed by a percentage stating the degree of functional impairment: "no problem" 0-4%, "a little problem" 5-24%, "a moderate problem" 25-49%, "a serious problem" 50-95%, "a complete problem" 96-100%, "without specification" and “not relevant”.1

However, the gradients make it very difficult to clarify the degree of improvement or impairment. Client improvement in functioning from 51% to 49%, will change a serious problem to a moderate problem, but no change in evaluation will occur from 95-50%. In our project we therefore have chosen a Visual Analogue Scale (VAS) from 0-100% (from none to total impairment) to register client level of functioning.

The score was based on clinical assessment interviews of the clients by each professional within the teams. Each professional was responsible for focusing on a certain number of codes, but the final score was carried out within the interdisciplinary team, both by the first and the second score. There is always a risk of serious biases when a score is based on a clinical interview. However, this was our best choice since we didn’t find any appropriate objective tools that could replace the clinical interview. Training to provide a common understanding for interpreting the codes minimized this bias.

Implementation

The guidelines for implementation of the project were that:

- Each centre should initiate rehabilitation of six new clients within a three-month period from the start of implementation.
- The first scoring should take place no later than four weeks after the project start date, but before any intervention was initiated. Within this period all members of the team should have at least one session with the client to gather the necessary information about the client for assessment in order to arrive at the initial score. It was agreed in advance which codes each of the clinicians was responsible for, and treatment should not start during this period.
- The period of intervention was fixed to a
maximum of eight months after the first scoring of the client. Periods of vacation for the clinicians were added to the period of intervention, so that the effective rehabilitation period was eight months, but not exceeding 34 weeks in total.

- The second scoring should take place either by ordinary termination of the client within the period of intervention or eight months after the first scoring assuming the client was not terminated before that date.

There were no requirements for specific methods of intervention. Except for the above mentioned criteria, treatment as usual should be offered. Furthermore, there were no common guidelines for using measurement instruments nor restrictions on which instruments each clinician or centre could use for assessment of the client or in their clinical work with him/her.

Results

The population

Out of 42 planned courses of intervention (six clients from each centre), 39 clients from eleven nations were included in the project. The vast majority was from the Middle East, including eleven from Iraq (Table 1).

Among the registered clients were 23 men and 13 women: 14% had an unstable asylum status, 81% were married, 62% were referred from a GP, 27% from the municipality and 3% from a psychologist, a psychiatrist, a specialist MD or local psychiatry, while 68% needed an interpreter for treatment.

From Figure 1, 73% of the clients had been subjected to traumatic experiences directed towards themselves or towards themselves and others, while 13% were subjected to traumatic experiences not directed towards themselves.

At the time of the first scoring, 68% had one or more well-known somatic diseases. Among the most common diseases were chronic back pain, whiplash, tinnitus, and pain after torture. In addition, diabetes, increased blood pressure, asthma, migraine, Mb cordis, arteriosclerosis, slipped disc, joint deviations, cirrhosis of the liver, gastritis, constipation, etc. Also at the first scoring, 84% had a well-known mental disease. Among the 31 clients who answered that they had a mental disease, 17 suffered from depression, 24 from PTSD, 10 from anxiety and 26 from other mental diseases. The vast majority thus had a somatic disease, a mental disease or both. No analysis was carried out to correlate the presence of traumatic experiences to somatic and mental diseases.

The Core Set

The Comprehensive Core Set was based on codes selected by the expert group. The Del-

<table>
<thead>
<tr>
<th>Nationality</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iraqi</td>
<td>11</td>
</tr>
<tr>
<td>Iraq Kurds</td>
<td>3</td>
</tr>
<tr>
<td>Bosnian</td>
<td>1</td>
</tr>
<tr>
<td>Armenian</td>
<td>1</td>
</tr>
<tr>
<td>Lebanese</td>
<td>1</td>
</tr>
<tr>
<td>Palestinian</td>
<td>2</td>
</tr>
<tr>
<td>Afghani</td>
<td>1</td>
</tr>
<tr>
<td>Somali</td>
<td>1</td>
</tr>
<tr>
<td>Chad</td>
<td>1</td>
</tr>
<tr>
<td>Kosovar</td>
<td>2</td>
</tr>
<tr>
<td>Iranian</td>
<td>5</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
</tr>
<tr>
<td>No data</td>
<td>2</td>
</tr>
</tbody>
</table>
phi-technique consisted of three rounds with an interval of 14 to 21 days.

All the experts answered the questionnaires timely except in round two, where only ten experts answered before distribution to the third round. A consensus of 80% was considered equivalent to at least ten experts (out of 12) who were not opting out a certain code. Based on that calculation, the Comprehensive Core Set comprised 106 codes. The allocation of codes on the five ICF components appears in Table 2.

To prepare a Brief Core Set, an additional round was chosen and the seven interdisciplinary teams from the centres negotiated which codes they found most relevant. Based on that process, a new Brief Core Set was developed resulting in 32 codes. The allocation of codes on the five components appears in Table 2.

The Brief Core Set comprises the following codes:

**BODY FUNCTIONS**

b130 Energy and drive functions
General mental functions of physiological and psychological mechanisms that cause the individual to move towards satisfying specific needs and general goals in a persistent manner.

Inclusions: functions of energy level, motivation, appetite, craving (including craving for substances that can be abused), and impulse control.

b134 Sleep functions
General mental functions of periodic, re-

---

**Figure 1.** The type of traumatic experiences the clients were exposed to (informed by the key persons).

<table>
<thead>
<tr>
<th>Type of experience</th>
<th>Percent of clients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directly towards themselves</td>
<td>10</td>
</tr>
<tr>
<td>Directly towards themselves and others</td>
<td>90</td>
</tr>
<tr>
<td>Directly towards themselves and grey zone</td>
<td>80</td>
</tr>
<tr>
<td>Not directly towards themselves</td>
<td>70</td>
</tr>
<tr>
<td>Not directly towards themselves and grey zone</td>
<td>60</td>
</tr>
</tbody>
</table>

**Table 2. Allocation of codes of the five components in Core Sets.**

<table>
<thead>
<tr>
<th>Components</th>
<th>Number of codes</th>
<th>Body functions</th>
<th>Body anatomy</th>
<th>Activity and participation</th>
<th>Contextual factors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comprehensive Core Set</td>
<td>32</td>
<td>5</td>
<td>44</td>
<td>25</td>
<td>106</td>
<td></td>
</tr>
<tr>
<td>Brief Core Set</td>
<td>10</td>
<td>0</td>
<td>17</td>
<td>5</td>
<td>32</td>
<td></td>
</tr>
</tbody>
</table>
versible and selective physical and mental disengagement from one’s immediate environment accompanied by characteristic physiological changes.

Inclusions: functions of amount of sleeping, and onset, maintenance and quality of sleep; functions involving the sleep cycle, such as in insomnia, hypersomnia and narcolepsy.

b140 Attention functions
Specific mental functions of focusing on an external stimulus or internal experience for the required period of time.

Inclusions: functions of sustaining attention, shifting attention, dividing attention, sharing attention; concentration; distractibility.

b144 Memory functions
Specific mental functions of registering and storing information and retrieving it as needed.

Inclusions: functions of short-term and long-term memory, immediate, recent and remote memory; memory span; retrieval of memory; remembering; functions used in recalling and learning, such as in nominal, selective and dissociative amnesia.

b152 Emotional functions
Specific mental functions related to the feeling and affective components of the processes of the mind.

Inclusions: functions of appropriateness of emotion, regulation and range of emotion; affect; sadness, happiness, love, fear, anger, hate, tension, anxiety, joy, sorrow; lability of emotion; flattening of affect.

b180 Experience of self and time functions
Specific mental functions related to the awareness of one’s identity, one’s body, one’s position in the reality of one’s environment and of time.

Inclusions: functions of experience of self, body image and time.

b280 Sensation of pain
Sensation of unpleasant feeling indicating potential or actual damage to some body structure.

Inclusions: sensations of generalized or localized pain in one or more body part, pain in a dermatome, stabbing pain, burning pain, dull pain, aching pain; impairments such as myalgia, analgesia and hyperalgesia.

b715 Stability of joint functions
Functions of the maintenance of structural integrity of the joints.

Inclusions: functions of the stability of a single joint, several joints, and joints generalized; impairments such as in unstable shoulder joint, dislocation of a joint, dislocation of shoulder and hip.

b730 Muscle power functions
Functions related to the force generated by the contraction of a muscle or muscle groups.

Inclusions: functions associated with the power of specific muscles and muscle groups, muscles of one limb, one side of the body, the lower half of the body, all limbs, the trunk and the body as a whole; impairments such as weakness of small muscles in feet and hands, muscle paresis, muscle paralysis, monoplegia, hemiplegia, paraplegia, quadriplegia and akinetic mutism.

b735 Muscle tone functions
Functions related to the tension present in the resting muscles and the resistance offered when trying to move the muscles passively.

Inclusions: functions associated with the tension of isolated muscles and muscle groups, muscles of one limb, one side of the
body and the lower half of the body, muscles of all limbs, muscles of the trunk, and all muscles of the body; impairments such as hypotonia, hypertonia and muscle spasticity.

**ACTIVITIES AND PARTICIPATION**

**d175 Solving problems**
Finding solutions to questions or situations by identifying and analysing issues, developing options and solutions, evaluating potential effects of solutions, and executing a chosen solution, such as in resolving a dispute between two people.

*Inclusions:* solving simple and complex problems.

**d230 Carrying out daily routine**
Carrying out simple or complex and coordinated actions in order to plan, manage and complete the requirements of day-to-day procedures or duties, such as budgeting time and making plans for separate activities throughout the day.

*Inclusions:* managing and completing the daily routine; managing one’s own activity level.

**d240 Handling stress and other psychological demands**
Carrying out simple or complex and coordinated actions to manage and control the psychological demands required to carry out tasks demanding significant responsibilities and involving stress, distraction, or crises, such as driving a vehicle during heavy traffic or taking care of many children.

*Inclusions:* handling responsibilities; handling stress and crisis.

**d350 Conversation**
Starting, sustaining and ending an interchange of thoughts and ideas, carried out by means of spoken, written, sign or other forms of language, with one or more people one knows or who are strangers, in formal or casual settings.

*Inclusions:* starting, sustaining and ending a conversation; conversing with one or many people.

**d470 Using transportation**
Using transportation to move around as a passenger, such as being driven in a car or on a bus, rickshaw, jitney, animal-powered vehicle, or private or public taxi, bus, train, tram, subway, boat or aircraft.

*Inclusions:* using human-powered transportation; using private motorized or public transportation.

**d570 Looking after one’s health**
Ensuring physical comfort, health and psychological and mental well-being, such as by maintaining a balanced diet, and an appropriate level of physical activity, keeping warm or cool, avoiding harms to health, following safe sex practices, including using condoms, getting immunizations and regular physical examinations.

*Inclusions:* ensuring one’s physical comfort; managing diet and fitness; maintaining one’s health.

**d620 Acquisition of goods and services**
Selecting, procuring and transporting all goods and services required for daily living, such as selecting, procuring, transporting and storing food, drink, clothing, cleaning materials, fuel, household items, utensils, cooking ware, domestic appliances and tools; procuring utilities and other household services.

*Inclusions:* shopping and gathering daily necessities.

**d630 Preparing meals**
Planning, organizing, cooking and serving simple and complex meals for oneself and others, such as by making a menu, selecting
edible food and drink, getting together ingredients for preparing meals, cooking with heat and preparing cold foods and drinks, and serving the food.

Inclusions: preparing simple and complex meals.

d640 Doing housework
Managing a household by cleaning the house, washing clothes, using household appliances, storing food and disposing of garbage, such as by sweeping, mopping, washing counters, walls and other surfaces; collecting and disposing of household garbage; tidying rooms, closets and drawers; collecting, washing, drying, folding and ironing clothes; cleaning footwear; using brooms, brushes and vacuum cleaners; using washing machines, driers and irons.

Inclusions: washing and drying clothes and garments; cleaning cooking area and utensils; cleaning living area; using household appliances, storing daily necessities and disposing of garbage.

d660 Assisting others
Assisting household members and others with their learning, communicating, self-care, movement, within the house or outside; being concerned about the well-being of household members and others.

Inclusions: assisting others with self-care, movement, communication, interpersonal relations, nutrition and health maintenance.

d710 Basic interpersonal interactions
Interacting with people in a contextually and socially appropriate manner, such as by showing consideration and esteem when appropriate, or responding to the feelings of others.

Inclusions: showing respect, warmth, appreciation, and tolerance in relationships; responding to criticism and social cues in relationships; and using appropriate physical contact in relationships.
chase food or bartering, exchanging goods or services; or saving money.

d870 Economic self-sufficiency
Having command over economic resources, from private or public sources, in order to ensure economic security for present and future needs.

**Inclusions:** personal economic resources and public economic entitlements.

**ENVIRONMENTAL FACTORS**

e310 Immediate family
Individuals related by birth, marriage or other relationship recognized by the culture as immediate family, such as spouses, partners, parents, siblings, children, foster parents, adoptive parents and grandparents.

**Exclusions:** extended family (e315); personal care providers and personal assistants (e340).

e320 Friends
Individuals who are close and ongoing participants in relationships characterized by trust and mutual support.

**Exclusions:** immediate family (e310); extended family (e315); friends (e320); general social support services (e5750); health professionals (e355).

e355 Health professionals
All service providers working within the context of the health system, such as doctors, nurses, physiotherapists, occupational therapists, speech therapists, audiologists, orthotist-prosthetists, medical social workers.

**Exclusion:** other professionals (e360).

e460 Societal attitudes
General or specific opinions and beliefs generally held by people of a culture, society, subcultural or other social group about other individuals or about other social, political and economic issues, that influence group or individual behaviour and actions.

e590 Labour and employment services, systems and policies
Services, systems and policies related to finding suitable work for persons who are unemployed or looking for different work, or to support individuals already employed who are seeking promotion.

**Exclusion:** economic services, systems and policies (e565).

**Implementation**
It was not feasible for all the centres to include enough clients within the inclusion period. Consequently, the period was extended another two weeks up to three and a half months. For several reasons it was not possible to maintain the frequency of four sessions per week with psychologists and physiotherapists/psychomotor therapists. It was not necessary to complete all the planned sessions, e.g., they had finished treatment with one of the specialists but continued with the others because all clients had different problems and therefore different needs for treatment. Nonetheless, we decided to retain them in the project to avoid an increased bias when comparing the first with the second scoring and to maintain a large number of clients in the project.

After the second scoring, 46% of the clients were considered recovered, 30% were still in treatment, 19% were excluded from the project, and 5% were unknown. In a few cases the second scoring was carried out by another person than the one who was responsible for assessment and the treatment. In these cases the scoring was exclusively based on the file.

By the second scoring, the key persons noted that, for 57% of the clients codes were redundant and for 47% codes were missing
within the Brief Core Set. Furthermore, the key-persons found that the Brief Core Set was too comprehensive and time-consuming.

Results of the scoring
For an instrument to be valuable for documenting and monitoring the rehabilitation of traumatised refugees, it must 1) include the range of problems most common for traumatised refugees and 2) measure changes in the functioning and health conditions addressed in the course of rehabilitation. In the following figures, the first score on each code is compared with the second score. Figure 2 illustrates the first response and second score regarding body functions for a single client. Code b144 has been scored like a disability after intervention, perhaps because there was no problem at the first scoring, which therefore scored 0%. The reason was not known in this case. Neither the duration of rehabilitation nor the status of completion of rehabilitation was indicated. The percentage indicates the interdisciplinary assessment of the impairment of functioning within each of the codes, with 0% equal to no impairment and 100% equal to total impairment.

Figure 2 shows how the functioning was evaluated, based on recording each code within the body functioning component before and after intervention. As an example, code b134 for sleep before intervention was estimated at 80% functional impairment, and after intervention it was reduced to 38%.

We also calculated the score for the total sample of clients. However, because the sample is small and does not constitute a normal distribution, we based our calculation on a median value of the impairment of functioning in order to provide an overall status for the clients’ health conditions.

The results (Figure 3) show that the impairment of functioning for most codes was

---

**Figure 2. An example of scoring a client response 1st (before intervention) and 2nd (after intervention) scoring for body functions.**
Figure 3. Median values for each code calculated for the entire sample of clients by response 1st (upper) and 2nd (lower) scoring.

**Body function**

<table>
<thead>
<tr>
<th>Code</th>
<th>Activity</th>
<th>Degree of impairment of functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>b130</td>
<td></td>
<td>0% 10% 20% 30% 40% 50% 60% 70% 80%</td>
</tr>
<tr>
<td>b134</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b140</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b144</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b152</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b180</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b280</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b715</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b730</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b735</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Activity**

<table>
<thead>
<tr>
<th>Code</th>
<th>Activity</th>
<th>Degree of impairment of functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>a175</td>
<td></td>
<td>0% 10% 20% 30% 40% 50% 60% 70% 80%</td>
</tr>
<tr>
<td>a230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a240</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a350</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a470</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a570</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a620</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a630</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a640</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a660</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a710</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a740</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a750</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a760</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a820</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a860</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a870</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 3 continues on the next page.
less at the second scoring than at the first scoring.

The environmental factors can be considered promoting as well as inhibitory. Factors marked with a + are considered as promoting and factors without a + are considered as inhibitory. For example, code e310 considers the influence of the family background: The family background can be both a promoting factor for the person’s health condition and
an inhibitory factor. By the first scoring the background family is considered to be a 78% inhibiting factor, but by the second scoring this factor was reduced to 50%. On the other hand, the family background was only considered as a 10% promoting factor by the first scoring, but 70% by the second scoring. This means that the negative factors of the family background on the functioning of the clients were reduced, while the positive factors increased.

Based on median values it is not possible to draw any conclusive explanation for the results because we have no information about specific interventions and external events which may impact the health conditions, and we don’t know how the single codes influence each other, e.g., how changes in the sleep function influence the perception of pain.

The objective of this project has mainly been to examine the applicability of ICF as an instrument for traumatised refugees, including the ability of the instrument to grasp relevant differences of functioning. It was not the purpose of this project to perform an effect study using ICF as an instrument. To do so a randomized control group should be selected and compared with the project group. The application of ICF as an instrument for monitoring only indicated whether a difference before and after intervention can be registered. Whether the difference is due to the intervention or to a general tendency to improve over time is not examined.

The reliability
Several biases have made it difficult to evaluate the reliability of the tool: 1) uncertainty in interpretation and evaluation of the codes, due to inconsistency in the participation of the project days when trial scoring took place and 2) changes of key persons within the project period.

However, the average difference between the highest and lowest scores (a summary average of all codes) decreased from 40% to 20% from the first to the second scoring. This indicated that increased knowledge of the tool improved the consensus among the teams scoring the clients and thus the reliability.

Discussion
Development of ICF Core Set
The steering group of the project selected the expert group from the criteria that each expert should have years of experience in the rehabilitation of traumatised refugees and that the group should be multidisciplinary. Presumably this was the best possible way to select a Comprehensive Core Set with the resources available for the project. However, we might have achieved a more reliable result had all processes included in the Delphi method been used. The selection of codes may have been altered if the experts had received prior training or had worked with the ICF. Objective criteria for expertise in the rehabilitation of traumatised refugees, e.g. specific training skills, titles, requirements of relevant publications, years of practice, could also have been considered. For future international use of the Core Set, an expert group consisting of international representatives might have been an advantage. Our expert group only included two international experts. However, within the western world it is not likely that the health conditions of traumatised refugees differ in any decisive way, considering that refugees in general come from the same countries. What may vary are the conditions of exile from country to country, and this will especially influence the environmental factors.

The consensus percentage has been discussed in the literature of ICF. The higher the percentage, the more reliable the Core
Set will be for the single codes. However, the more limited the Core Set, the greater the risk that some important codes will be missing to provide an overall description of the health condition of the target group. A consensus percentage of 80% seems to be reasonable even though we arrived at an extensive Comprehensive Core Set.

The method used for constructing the Brief Core Set did not strictly follow the rules of the Delphi method. However, we found the process described above useful and necessary to ensure a balance by considering the variable mental, physical and social aspects selected by different professional groups and the overall interdisciplinary view of the health condition of traumatised refugees. Compromises were made, and selected codes which were considered important by some professional groups but not others were excluded. For example, the physiotherapists/psychomotor therapists missed a code describing respiration (b499), which was considered a very important code. On the other hand, the Brief Core Set ended up with too many codes when considering that ICF must not be too complicated and time consuming for clinicians to use. From that perspective, the Brief Core Set needs to be re-considered.

The key persons had difficulty agreeing on how to understand and interpret each code. To increase both the validity and reliability of the scoring, help-descriptions for many of the codes should be prepared, explaining how the code should be interpreted and indicating how to examine the code with the client.

**Scoring the Codes**

The procedure for examining the level of functioning of the clients was not very clear. Some centres used alternative tools or tests to examine the clients, and some did not. Furthermore, there were no clear instructions for interviewing the client in order to gather valid information corresponding with the codes. No clear distribution of responsibility among professionals within the interdisciplinary team was determined for gathering information about each code prior to the second scoring. To ensure a valid and consistent result, defining responsibility is crucial, and tools, checklists, and guidelines for the scoring need to be further developed.

ICF has been considered a professional assessment instrument, based on a consistent knowledge and theory regarding functioning and health as well as on information from the client. This assessment forms the basis for description of functioning in order to set priorities for rehabilitation efforts and goals. Thus ICF is not appropriate as a self-rating tool, and there is no direct link from certain answers stated by the clients to a certain score. In our view, the clinical assessment can not be avoided despite the application of so-called objective assessment tools. Assessment tools can supplement ICF but not replace clinical assessments.

In clinical research, scoring should not be carried out by the same person(s) also responsible for treatment or rehabilitation. This avoids bias deriving from the clinician-conscious or unconscious wish to find a positive result. However, since no objective tools corresponding with the single codes have been developed, for practical as well as ethical reasons it is not feasible to completely avoid this bias. However, the bias can be minimised by more precise use of tools, check-lists and guidelines for the scoring process. The reliability of the scoring can also be increased by proper training of the clinicians to score the codes.

The results of the scoring can be useful for planning which aspects of the client’s problems should be addressed and where to
discover the client’s resources. However, ICF is not appropriate for determining any average of functioning for a client because each code cannot be equally weighted with the other codes.

By the second scoring, the key persons noted that for 57% of the clients codes were redundant and for 47% codes were missing within the Brief Core Set. Considering that traumatised refugees are a very complex group, with a variety of symptoms and distress, these figures seem quite modest. If the correlation is high between the codes that are redundant with respect to those missing, revising the Brief Core should be considered but, if not, expected variation within the group would be an explanation.

Evaluating the results from the first and second scoring showed that the Brief Core Set clearly identified relevant aspects of functional impairment for the clients. Only code no. p760 (family relationships) and p820 (school education) were lower than 20% impairment on average for both first and second scorings, and only related to participation. This indicates that the instrument is valid for providing information to focus on important aspects of the health conditions of the clients. In addition, the vast majority of the codes revealed a difference between the first and second scores, with the second score showing a decrease in functional impairment of the clients. A few codes showed an increase in functional impairment: (code no. a640 (doing house work); a750 (caring for household objects); c310d (immediate family); c320 (friends); and c355 (health professionals). The impairment of functioning of these aspects, which focuses on close relationships and dependency on professionals, can be explained by the fact that functioning improved on some more external aspects.

We didn’t determine whether the decrease in functional impairment was significant or not because of the small number of clients included in the project and because this was not an objective for the project, though it could be an objective for further studies. Scoring a control group could also be considered, but this raises some ethical problems.

**Conclusion**

On basis of the results, it seems fair to conclude that ICF is a suitable instrument to document and monitor achievements of the rehabilitation of traumatised refugees. By focusing on five very important components of functioning, Body Functions, Body Anatomy, Activity and Participation, Environmental Factors and Personal Factors, ICF offers an overall view of the human aspects of functioning. Considering the very complex situation of traumatised refugees, this perspective seems crucial since traumatisation of refugees impacts the mental, physical, and social functioning. This advocates for an interdisciplinary approach emphasizing rehabilitation, which includes treatment, as a part of the effort. ICF seems to be an appropriate instrument to describe the overall health condition of a patient or client and to document and monitor rehabilitation. ICF focuses on functioning rather than symptoms and diagnosis. It takes into account impairment as well as resources of the person, which creates a good basis for an assessment of all aspects of the person’s health conditions.

We successfully developed a Comprehensive Core Set with 106 codes describing common and important aspects of traumatised refugees’ health conditions. The result might have been a little different if the procedure had been carried out by international experts selected by certain criteria, but probably not in any decisive way.
The key persons on the project selected a reduced number of codes to make the scoring practical within the framework of a rehabilitation centre. However, this Brief Core Set still includes too many codes to be practical, and a future analysis should reveal whether some codes are missing or redundant. For future implementation, the Brief Core Set should be revised.

The ICF provides a common language and understanding among different professional groups and a basis for common planning of the course of rehabilitation. However, common procedures, tools, and tests should be developed to increase the reliability of the instrument.

Based on this project, we cannot draw any conclusion about the effectiveness of the rehabilitation efforts at the seven participating centres. The changes in the level of functioning from the first to the second scoring can be due to treatment and rehabilitation, but can also be due to external factors such as changes in the situation of the client’s homeland or in the legislation regulating the social situation of the refugees.

Finally, the ICF as an instrument for documentation and monitoring is not fully developed, but may be the best available common and interdisciplinary instrument for documentation and monitoring traumatized refugees.

For future projects, revising the Brief Core Set based on analysis of the data from this project should identify the most relevant codes for an overall description of the health condition of traumatised refugees and reduce the Brief Core Set to a practical number of codes. The instrument should also be validated in order to make it applicable for outcome studies.

References
15. Dahl S, Dahl CI, Sandvik L et al. [Chronic pain in traumatized refugees]. Tidsskr Nor Laegeforen 2006;126:608-10.
17. Egli EA. Self-report of psychological distress and


Living in exile when disaster strikes at home

Signe Hjelen Stige, Psychologist* & Nora Sveaass, Psychologist**

Abstract
As the number of migrants – forced or voluntary – increases, there is a growing need to understand how negative events in the country of origin influence those residing abroad. This issue has been actualized by the recent earthquakes in Haiti and Chile. Persons in exile have frequently been exposed to severe human rights violations and other stressors prior to emigration. The present study explored possible associations between ongoing and former stressors and mental health problems among persons living in exile as the Tsunami disaster of 2004 struck their country of origin. The contribution of former exposure and exile-related difficulties in explaining current mental health problems was explored together with Tsunami-related bereavement and social support. Following the Tsunami disaster of 2004 a questionnaire was administered to individuals of Tamil and Acehnese origin residing in Norway. The results suggest an independent contribution of exile-related difficulties, former exposure and social support in explaining current mental health problems in this group. The study also disclosed methodological challenges involved both in relation to recruiting participants and in isolating the contribution of a particular stressor in populations with high levels of former exposure as well as ongoing stress.

Key words: exile, trauma, stress, disaster, mental health

Introduction
International migration has doubled over the last 30 years, and the migration movement is mostly in a south to north direction. Whereas one in ten persons living in countries in the north has a migrant background, the number is one in 70 in countries in the south. Today the highest number of migrants, voluntary and forced migrants together, is found in Europe (64 million), Asia (53 million), and North America (43 million), and the countries from where the majority of the migrants come from are low-income countries. At the same time these countries are statistically more exposed to war and political instability as well as to natural catastrophes of different kinds. Catastrophes seem to hit developing countries more often, and more severely, than industrialized countries, with a ratio of 166:1 in casualties. This implies that at any given moment when disaster happens or a political upheaval takes place, a large number of people originating from the affected area, find themselves emotionally affected, but physically remote from the incident.

The recent earthquakes in Chile and Haiti underline the relevance and import-
ance of understanding how migrant populations are affected by negative events in their countries of origin, especially taking into account the high prevalence of former traumatic exposure, such as war, conflict, losses and severe human rights violations that is frequently found in these groups of migrants. e.g. 3, 4-8 It has also been shown, irrespective of what happens in the country of origin, that refugees frequently find themselves in a situation where a number of complex factors influence their current mental health, such as previous traumatic exposure, exilerelated problems and lack of social support. 9-14 Nevertheless, the possible impact on mental health of disastrous events at home, for those living in exile, has been given very little attention. Seen in relation to previous studies on forced migration and mental health, interest arose as to how different factors normally found to explain variance in mental health problems among refugees operate in exiled populations that have recently experienced a major disaster affecting their families and country of origin.

The Tsunami of 2004 hit both Aceh province in Indonesia and Sri Lanka hard, with Sri Lanka registering 35,000 casualties and 500,000 internally displaced persons.15 In the Aceh province alone, approximately 170,000 people lost their lives and 600,000 their livelihood. The affected areas suffered extensive economic, infrastructural and human development losses, with close to 90% of the population having lost their sources of livelihood. Beyond this, both the Aceh province in Indonesia, and Sri Lanka have been heavily affected by civil war for a long period of time, resulting in high numbers of persons leaving the territories. A total of 79,100 persons from Sri Lanka were registered as refugees by the end of 2005, and 324,700 as internally displaced persons within the borders of Sri Lanka. Corresponding numbers for Indonesia were 44,300 registered refugees and between 342,000 and 600,000 internally displaced persons.16

Norway has received a substantial number of refugees both from Sri Lanka and from the Aceh province. Following the Tsunami there were two exiled groups in Norway heavily affected by the Tsunami, and at the same time with high probability of traumatic exposure prior to the Tsunami. The Norwegian government focused their interventions on the exiled groups around those who had lost family in the Tsunami. But the question arose as to how different types of Tsunami-related bereavement (close family, extended bereavement or friends) were associated with mental health in populations where there was a high probability of trauma exposure also prior to the Tsunami. This paper is an attempt to explore this question further. A research project following the 2004 Tsunami was thus initiated, focusing on Acehnese and Sri Lankan Tamils living in exile in Norway who were personally affected by the Tsunami by having family or friends who were either missing or dead in the Tsunami. In Western cultures one would expect a difference in reactions following loss of close family members as opposed to friends and neighbours. We wanted to look further into the situation for persons in exile, who have been exposed to pre-flight trauma, and who experienced losses in the context of a Tsunami, be it loss of family, friends, or both. When the Tsunami hit, the migrants were physically remote from close relatives and friends and received conflicting, confusing or limited information about their loved ones due to limited and often incorrect media coverage and to the chaotic situation following the disaster. They also experienced that they could do little to help family and friends in the disaster areas. The severity of such stressors and their possible psycho-
logical impact is highlighted by the fact that “... unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate” is included as one of the A-criteria for PTSD in DSM-IV.

The fact that the Norwegian government initiated measures towards individuals from Aceh and Sri Lanka who were directly affected by the Tsunami represented an impetus for a study on how such groups are affected and how the multiple stressors may affect their current mental health. Since those directly affected by the Tsunami represented the beneficiaries for the government assistance programme, the decision was taken to include only this group in our study.

The study has two main research questions. 1) What association can be seen between mental health problems and Tsunami-related bereavement in populations living in exile who originated from the affected areas? 2) What factors are associated with current mental health problems among exiled individuals who have recently experienced such major catastrophes in their country of origin?

The study forms part of a comprehensive research programme at the Norwegian Centre for Violence and Traumatic Stress Studies investigating the relationship between disaster stressors and health problems in different groups affected by the December 26, 2004 Tsunami in South-Asia. This programme also included studies of tourists, both adults and children, who were visiting the sites when the Tsunami struck, their bereaved families at home and emergency personnel who went to work in the affected areas in the aftermath of the disaster, including journalists.

Method

Participants and recruitment

The two sub-samples in this study, the Sri Lankan Tamils and the Acehnese, present quite different characteristics with respect to numbers and geographical location in Norway. While the majority of the Sri Lankan Tamil population in Norway have refugee status, there are also some work migrants among them who arrived in the 1970’s. There are 12,000 Tamils in Norway at the present residing in 126 different municipalities. The Aceh population differs from the Tamils in many ways. The group is small, consisting only of 185 persons, and most of them residing in three neighbouring municipalities. They all arrived as refugees between the years 2000 and 2002.

At the time of the 2004 Tsunami there was no public register of persons with Acehnese and Tamil background, and thus the challenge was to get in touch with the relevant population. Due to the different characteristics of the two sub-samples in the study, two different approaches were chosen to recruit participants. For the Sri Lankan Tamils, an approach of sending a self-administered questionnaire in the Tamil language to a randomised sample was chosen. The random sample was stratified on sex and age and consisted of 1,600 persons whose last country of residence was Sri Lanka. Whereas all 1,600 were asked to return the questionnaire, only those meeting the inclusion criteria of being in some way personally affected by the Tsunami were asked to complete and return the full questionnaire, as the main focus in the study was on the association between Tsunami related bereavement and mental health. This was in concordance with the recommendation by the Norwegian committee of ethics. Prior to the construction of the questionnaire, a qualitative pilot study was carried out, revealing important aspects and factors to include in the questionnaire, as described below.

The questionnaire was sent out in Au-
August 2005, with one reminder sent out three weeks later. A total of 163 Sri Lankan Tamils returned the questionnaire, and 61 of these met the inclusion criteria. Forty-three of the 61 were women, and 32 had become Norwegian citizens. Implications of the low response rate will be discussed later. For the Acehnese subgroup a more direct approach to recruitment was chosen. In co-operation with local representatives of the Aceh community in Norway, meetings were organised where affected persons could participate and complete the questionnaires. This took place towards the end of 2005. The instruments were not translated but interpreters were available throughout the sessions. A total of 81 Acehnese persons completed the questionnaire, and all of them met the inclusion criteria of being in some way personally affected by the Tsunami.

Full sample
The full sample thus consisted of 61 individuals with Tamil background from Sri Lanka, and 81 from Indonesia, all living in Norway and all related to persons who were missing or who died in the Tsunami. For a more complete description of the demographics of the study group, see Table 1 on page 80.

As presented in Table 1, there were substantial differences between the two groups on several variables. Persons in the Acehnese sample were younger, had been in Norway a shorter period of time, were more likely to be men, less likely to be married, less likely to be employed, and more likely to have been granted asylum in Norway. In addition there were significant differences with regard to religious belonging in the two groups. All of the Acehnese were Muslims, while most of the Tamils were either Hindus or Catholics. There was, however, no significant difference in educational level between the two groups.

Measurements
In order to measure affectedness by the disaster, questions were formulated to register type of losses and persons missing, as well as how long time people had been missing. As part of this process a qualitative pilot study was carried out, interviewing persons from the population in question. This was considered particularly important as there is little prior knowledge linked to the research questions. Current mental health problems were measured by using the Post Traumatic Symptom Scale 12, 21 General Health Questionnaire-28, 22 and Inventory of Complicated Grief (ICP). 23 The Inventory of Complicated Grief was administered to the Tamil group in full, as this was done in writing, whereas the Acehnese group was only given a selection of eight questions from this inventory. This was done both because of time constraints, and because some of the items proved difficult to answer. The mean score for the questions administered to both groups is applied in the analyses. In order to establish a level that would constitute presence of mental health problems, or “caseness”, on the measures used in the study, recommended cut-off scores were applied. For PTSS-12, that meant that the cut-off score was between 28 and 29, 24, 25 for GHQ-28, between 5 and 6, 26 and for ICG between 24 and 25. 23, 27, 28

Exile-related problems were measured using the Post-Migration Living Difficulties Questionnaire. 7, 14 Some of the questions were slightly altered in order to improve the correspondence to the Norwegian healthcare and immigration systems. Former traumatic exposure was assessed differently in the two sub-samples. The Sri-Lankan Tamils were asked about 21 potentially traumatising experiences (adjusted version of the Stressful Life Experiences Screening), and the Acehnese were asked about eight warrelated experiences, based on the Harvard Trauma
Questionnaire, (experiencing life-threatening events and acts of war, witnessing torture and killing, forceful separation from family, experiencing physical violence, torture and other extreme events). The reason for this is again related to the different ways in which the data was collected and the fact that the longer list used in the Tamil questionnaire was too comprehensive for the sessions where the interviews with the Aceh group took place. As there were several overlapping items it was possible, in order to compare the two groups as well as to explore a common variable of traumatic exposure,

<table>
<thead>
<tr>
<th>Table 1. Demographics for the two groups and the whole sample. Significance levels from Independent Samples T-tests between the two groups are indicated.</th>
<th>Full sample (n=142)</th>
<th>Acehnese (n=81)</th>
<th>Sri Lankan Tamils (n=61)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td><strong>Age</strong>*</td>
<td>35.23</td>
<td>11.22</td>
<td>32.98</td>
</tr>
<tr>
<td><strong>Years in Norway</strong>*</td>
<td>6.71</td>
<td>5.75</td>
<td>3.53</td>
</tr>
<tr>
<td><strong>Education – years</strong></td>
<td>10.08</td>
<td>3.80</td>
<td>10.12</td>
</tr>
<tr>
<td><strong>Female</strong>*</td>
<td>76</td>
<td>53.50</td>
<td>32</td>
</tr>
<tr>
<td><strong>Male</strong></td>
<td>66</td>
<td>46.50</td>
<td>49</td>
</tr>
<tr>
<td><strong>Married</strong>*</td>
<td>111</td>
<td>78.17</td>
<td>59</td>
</tr>
<tr>
<td><strong>Employment</strong>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time</td>
<td>36</td>
<td>25.35</td>
<td>13</td>
</tr>
<tr>
<td>Part time</td>
<td>31</td>
<td>21.83</td>
<td>16</td>
</tr>
<tr>
<td>Unemployed</td>
<td>36</td>
<td>25.35</td>
<td>26</td>
</tr>
<tr>
<td>Student</td>
<td>18</td>
<td>12.68</td>
<td>12</td>
</tr>
<tr>
<td>Social security/Pension</td>
<td>21</td>
<td>14.79</td>
<td>14</td>
</tr>
<tr>
<td><strong>Religion</strong>*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hinduism</td>
<td>40</td>
<td>28.17</td>
<td>0</td>
</tr>
<tr>
<td>Islam</td>
<td>81</td>
<td>57.04</td>
<td>81</td>
</tr>
<tr>
<td>Catholicism</td>
<td>15</td>
<td>10.56</td>
<td>0</td>
</tr>
<tr>
<td>Other religion</td>
<td>2</td>
<td>1.41</td>
<td>0</td>
</tr>
<tr>
<td>No religion</td>
<td>4</td>
<td>2.82</td>
<td>0</td>
</tr>
<tr>
<td>**Residency ***</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Granted asylum</td>
<td>83</td>
<td>58.45</td>
<td>73</td>
</tr>
<tr>
<td>Humanitarian Grounds</td>
<td>24</td>
<td>16.90</td>
<td>6</td>
</tr>
<tr>
<td>Family reunion</td>
<td>30</td>
<td>21.13</td>
<td>2</td>
</tr>
<tr>
<td>Student</td>
<td>5</td>
<td>3.52</td>
<td>0</td>
</tr>
</tbody>
</table>

**p <0.001**
to recode the answers from the Sri Lankan group to match the eight categories in the Aceh material.

Other potentially traumatic experiences reported by the Sri Lankan Tamils were consequently not included. Perceived social support was measured by replies to questions related to reported availability of assistance, practical and emotional support from family and a social network. The alteration in the questionnaire administered to the Aceh sample represents an attempt to shorten the length of the questionnaire, with the aim of obtaining a higher response rate. This was done because of the low response rate acquired in the Tamil sample.

Cultural feedback and translation
In order to adapt the questionnaires to the groups in the best possible way, resource persons in the Tamil and Aceh communities in Norway were consulted regarding the cultural appropriateness and sensitivity in the measures chosen, as well as to the study as a whole. We were especially concerned with the questions regarding Tsunami-related bereavement, and as part of this process a qualitative pilot study was carried out, interviewing Sri Lankan Tamils affected by the Tsunami. For the translations of the questionnaires, two approaches were chosen. It was translated into Tamil language in writing, and in this process both translation and back-translation were performed, according to the recommendations of Brislin. For the Acehnese, interpreters were available during the completion of the questionnaires as this was done in specially organised meetings (see above).

Psychological distress
As the scores on the three measures of mental health problems (PTSS 12, GHQ 28 and Inventory of complicated Grief) correlated highly (ranging from r = 0.557 to r = 0.751), an Exploratory Principal Component Analysis with varimax rotation was conducted. Both Kaiser's criterion and Cattell's scree-plot test indicated that a one-factor solution was satisfactory, explaining 48.61% of the total variance, with all questions loading higher than 0.40. The combined measure, here defined as “psychological distress” (PD), thus covers what may be the underlying phenomena in all of the three different measures used. In most of the remaining analyses, this combined measure (PD) is used as an indicator of the mental health problems in the study groups.

Statistical analyses
Two sets of analyses were carried out to shed light upon the possible relationship between Tsunami-related bereavement and current mental health problems. First, cross-tabulations with type of bereavement (close family, extended family or friends) and level of mental health problems reported on the three measures applied were carried out. Then a GLM Univariate analysis was used, where the combined measure of psychological distress was the dependent variable, while the qualitative variable of Tsunami-related bereavement was the independent variable. Cross-tabulations were applied to investigate whether significant differences existed between the two groups with regard to Tsunami-related bereavement. Subsequently both sets of analyses were carried out for the sample as a whole and for the two groups separately.

The relationship between current mental health problems, former exposure to traumatic events, exilerelated problems, and social support, was explored by using a multiple regression analysis and path analysis. Independent Samples T-tests were applied to determine whether or not sys-
tematic differences existed between the two sub-samples with regard to former exposure and mental health problems. Analyses were carried out both in the full sample and in the two groups. The results from the two sub-samples will only be presented where these diverge from the results based on the full sample.

Handling of incomplete questionnaires
A number of respondents had skipped at least one question in the survey. Attempts to replace or compensate for non-answered or missing items is a complicated process, and no method fully can repair the fact that respondents skip questions. We therefore chose not to replace missing data on item-level. In calculating the combined measure, a mean score of the completed items was calculated, if that the person had responded to at least 10 items. The reliability of this method was assured by calculating Cronbach’s Alpha of several random selections of sets of 10 items included in the combined measure. In all cases the reliability proved satisfactory ($\alpha > 0.70$). In the remaining analyses the responses were left as they were, and consequently, as will be seen in the following, “n” varies slightly from analysis to analysis.

Reliability of the measures
All measures obtained satisfactory reliability, indicated by Cronbach’s Alpha $> 0.70$ (Psychological distress, $\alpha = 0.98$; Former

---

![Figure 1. Tsunami-related losses reported in the two groups.](image-url)
exposure, $\alpha = 0.72$; Exile related difficulties, $\alpha = 0.82$).

**Results**

A presentation of the degree to which the study population was affected by the Tsunami, and the level of mental health problems in the group as assessed in this study, will be presented before moving to the results in relation to the two research questions.

The majority in both groups had experienced loss of friends and extended family, while relatively few had experienced loss of close family, here defined as parents, spouse, children, siblings, grandparents and grandchildren, as shown in Figures 1 and 2. Cross-tabulation with Tsunami related bereavement and nationality further showed that 32.1% of the Acehnese sample had lost “close” family, whereas 8.8% of the Tamil sample reported losing “close” family in the Tsunami (p< 0.001).

A high level of mental health problems on the three included measures was reported with 82.4% of the participants scoring above cut-off level on GHQ-28, and 75.4% and 67.6 % respectively on PTSS-12 and ICG.

**Research variables in the two groups**

An Independent Samples T-test was used to determine whether there were significant differences between the two groups on any of the research variables, namely mental health problems, exile related problems, former exposure, Tsunami related bereavement and social support. The results of the analyses are presented in Table 2, and as shown, there are some significant differences between the two groups. The Acehnese group reported more
mental health problems, as measured by the G-factor, as well as more exilerelated difficulties than the Sri Lankan Tamils. As for percentage scoring above cut-off level on the different measures on mental health in the two sub-samples, Cross-Tabulation showed no significant differences between the two groups. Although the total former exposure was high in both groups (on average five of the eight trauma events prior to the Tsunami is reported (SD = 2)), independent samples T-test showed that no significant difference existed between the two groups on total exposure. Due to these significant differences between the two sub-groups on several of our research variables, “nationality” will be included in the multiple regression analysis to ensure that the differences between the two groups are not systematically influencing the results.

**Tsunami related bereavement and current mental health problems**

Neither GLM-Univariate Analysis nor cross-tabulation showed any significant relationship between type of Tsunami-related bereavement and current mental health problems. In other words, type of Tsunami-related bereavement experienced (e.g. close family vs. friends only) appeared not to have an independent contribution in explaining psychological distress. This was true both in the full sample and in the two groups.

An analysis was carried out to see if interaction effects were present, masking the possible relationship between Tsunami-related bereavement and psychological distress. No interaction effects between Tsunami-related bereavement, former trauma events, exilerelated difficulties and social support were found.

As neither GLM-Univariate nor Cross-tabulation showed any significant relationship between type of Tsunami-related bereavement and current mental health problems, Tsunami-related bereavement was excluded from the remaining analyses. The results from Multiple Regression Analysis with three research variables and control variables are displayed in Table 3.

Neither the control variables nor nationality seem to contribute to explain the scores of mental health problems in this sample (see Table 3). The three research variables all have an independent contribution in explaining psychological distress. While there is a positive association between former exposure to traumatic events, exilerelated difficulties and psychological distress,
distress, we see that perceived social support shows a negative association with psychological distress.

To investigate further how psychological distress in the current sample is influenced by different parameters, Path Analyses were carried out, applying the programme AMOS-7. Path Analysis represents an advantage over multiple regression analysis in offering an opportunity to consider the fit of a whole model without having to assume correlations between all variables included, and at the same time assumes the direction of the relationship. The results from the path analyses are presented in Table 4 and Figure 3. As shown in Table 4 the model appears to have a good fit and all associations in the model are significant at p <0.05.

The model also shows that nationality, time in host country and activity in work or studies are variables that, in addition to our research variables, are associated with the mental health condition. Nationality is related to time spent in Norway, and this seems to have a negative association with the degree of exile related problems and a positive association with the probability for work or studies. Being employed/studying has in turn a direct negative association with the level of mental health problems. There is also association between our research variables, where a higher level of former exposure leads to an increased probability of exile-related problems and decreased probability of perceived social support. Lower levels of perceived social support are in turn associated with a higher level of psychological distress. The model thus shows that there is a complex interplay between different variables influencing the level of mental health problems in exiled populations that have recently experienced disaster-related bereavement in their country of origin.

Table 3. *Multiple regression analysis for the full sample. The G-factor of psychological distress operates as the dependent variable, while the research variables and control variables are the independent variables. Significance levels are indicated.*

<table>
<thead>
<tr>
<th></th>
<th>G-factor, Adj. R²= 0.364</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>β</td>
</tr>
<tr>
<td>Former exposure</td>
<td>0.21*  2.28</td>
</tr>
<tr>
<td>Exilerelated difficulties</td>
<td>0.26**  2.75</td>
</tr>
<tr>
<td>General social support</td>
<td>−0.36***  −3.97</td>
</tr>
<tr>
<td>Gender</td>
<td>0.11  1.23</td>
</tr>
<tr>
<td>Nationality</td>
<td>0.09  0.75</td>
</tr>
<tr>
<td>Years in Norway</td>
<td>−0.08  −0.60</td>
</tr>
<tr>
<td>Education</td>
<td>0.15  1.74</td>
</tr>
<tr>
<td>Age</td>
<td>0.06  0.60</td>
</tr>
</tbody>
</table>

*) p<0.05    **) p<0.01    ***) p<0.001

Discussion

Discussion of findings

This study was an attempt to shed some light upon the possible consequences of new stressful events in the lives of people formerly exposed to violence and hardships. When the Tsunami disaster of 2004 struck areas from where large groups of refugees originate, it became evident that little attention had been given to this particular kind of situation, namely that refugees, after having left their countries of origin for reasons of persecution, threat, conflict and risk of severe human rights violations, from the position of exile are confronted with new disasters at home.

Internationally, the major focus of assistance was on those residing in the affected areas. But the disaster in 2004 actualized the need to explore the possibilities and needs for assistance to those who originate from affected areas but live elsewhere when disasters happen. It provided a chance to study also the possible contribu-
Table 4. Descriptives of the variables and relationships included in the path analysis in Figure 3. NB: Nationality is scored as a dichotomy where Sri Lanka equals “0” and Aceh “1”.

<table>
<thead>
<tr>
<th>Variable</th>
<th>M (SD)</th>
<th>R²</th>
<th>r</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological distress</td>
<td>2.02 (0.87)</td>
<td>41.3%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Exilerelated difficulties</td>
<td>2.38 (0.51)</td>
<td>14.1%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Exilerelated difficulties → Social support</td>
<td>–</td>
<td>–</td>
<td>-0.347</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Exilerelated difficulties → Health Problems</td>
<td>–</td>
<td>–</td>
<td>0.300</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Social Support</td>
<td>4.82 (2.63)</td>
<td>20.9%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Social support → Health Problems</td>
<td>–</td>
<td>–</td>
<td>-0.325</td>
<td>&lt; 0.001</td>
</tr>
<tr>
<td>Reported Traumatic Exposure</td>
<td>5.13 (2.05)</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Trauma → Exilerelated difficulties</td>
<td>–</td>
<td>–</td>
<td>0.221</td>
<td>0.008</td>
</tr>
<tr>
<td>Trauma → Health Problems</td>
<td>–</td>
<td>–</td>
<td>0.206</td>
<td>0.005</td>
</tr>
<tr>
<td>Trauma → Social Support</td>
<td>–</td>
<td>–</td>
<td>-0.231</td>
<td>0.004</td>
</tr>
<tr>
<td>Years in Norway</td>
<td>6.71 (5.75)</td>
<td>50.9%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Years in Norway → Exilerelated difficulties</td>
<td>–</td>
<td>–</td>
<td>-0.303</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Years in Norway → Active in work or studies</td>
<td>–</td>
<td>–</td>
<td>0.235</td>
<td>0.008</td>
</tr>
<tr>
<td>Active in work or studies</td>
<td>59,5%</td>
<td>5.5%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Active in work or studies → Health Problems</td>
<td>–</td>
<td>–</td>
<td>-0.142</td>
<td>0.044</td>
</tr>
<tr>
<td>Nationality → Years in Norway</td>
<td>–</td>
<td>–</td>
<td>-0.713</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

Figure 3. A model demonstrating parameters influencing psychological distress in the current sample and the relationship between those parameters.
tion of such new stressors and losses in explaining mental health problems of persons in exile, who prior to migration have been exposed to violence and different kinds of traumatic stress.

The study is in concordance with other studies on refugee populations, finding high level of exposure to traumatic events prior to migration, ongoing exile related problems, as well as high levels of mental health problems. The importance of perceived social support in exile, as studied by Gorst-Unsworth & Goldenberg is also referred to in the present study.

Looking into the relationship between these different factors and present psychological distress yielded some expected, and some less expected, results. In concordance with studies on exiled populations without recent disasterrelated bereavement, the present study showed the importance of former traumatic exposure, social support and ongoing exile related problems in explaining levels of current mental health problems. However, from a statistical point of view, no clear independent contribution of type of Tsunamirelated bereavement on current mental health problems could be detected. This comes out as a strong contrast to the results from the qualitative pilot study, which indicated that the subjective experience of the Tsunami was termed the worst they had experienced. As one informant said: “The Tsunami is the worst thing that has ever happened. War we know. We know where it is and how to avoid it. The Tsunami just came – so unexpectedly!”

There are several ways to interpret this lack of association. In designing the study, we considered the contrast between losing friends and losing close family members as strong enough to be statistically detected and thus capable of contributing to the research question. Nevertheless the lack of significant associations between these factors may point to weaknesses in the design, where a non-affected control group would have enhanced the contrast in affectedness. The lack of association may also be interpreted differently, stressing the importance of the whole network to those affected. That is, to the studied groups, the loss of friends was experienced as emotionally difficult as the loss of family members. Alternatively, the lack of association can be seen in relation to a dose-response understanding of trauma, where the total number of experienced trauma is more decisive to current mental health problems, than the recent Tsunamirelated bereavement. As such it may seem difficult to isolate the influence of one stressor in a population that has such a high level of former exposure.

It is also possible to interpret the lack of association between Tsunamirelated bereavement and mental health problems as a result of faulty operationalisation. It may well be that the final confirmation of bereavement, be it friends or family, is not what constitutes the main Tsunamirelated trauma. The Tsunami struck an area where earthquakes and tsunamis are not common. There was a lack of preparedness, both in the government and the general population. Learning about the Tsunami might therefore have constituted the biggest trauma related to the Tsunami, rather than the type of traumarelated bereavement experienced. The shock of learning that your country has been struck by a major disaster was compounded by direct media coverage of the destruction, and breakdown in infrastructure and communication, thus leaving people in the dark for a long period before learning who was affected by the Tsunami. Similar to survivors of other types of trauma, for example survivors of assault, they continue to be affected even
though they know they survived, or in this case, know who died in the Tsunami. It is the shock, the uncertainty and the threat to your integrity or the integrity of your loved ones in that particular moment that constitutes the trauma. If this is the case, the inclusion of a control group would still not have resulted in greater contrast; they would still all have been affected by originating from a country struck by a major disaster.

Whatever the reason for the lack of association found, the results from the pilot study illustrate the importance of conducting more studies investigating how recent traumatic bereavement is associated with mental health problems in populations with a history of prior traumatic exposure. Further research is therefore needed, where one includes a control group from the same country that was not personally affected by the disaster, as well as a control group from a different country not recently affected by any major disasters. This would provide better control for the variables former exposure, exilerelated stress and possible faulty operationalisation when doing the analysis, hence increasing the probability of isolating the variance in mental health problems possibly explained by Tsunami related bereavement.

The overall results also point at the complexity associated with current mental health problems in populations with high levels of former trauma exposure, and ongoing exilerelated stress. The path analysis (see Figure 3) reveals the complex interplay between these parameters and the necessity of considering the broad picture and the interconnectedness between these variables when trying to understand the present situation of individuals with the kind of experiences described in this study. The path analysis also implies what interventions may prevent aggravation of mental health problems among groups in exile, namely reducing unemployment, facilitating development of social networks, and minimising other systemrelated difficulties in exile.

Discussion of the methodological issues involved in the study

One obvious methodological weakness in the current study is the low response rate obtained in the Tamil sample (only 10%). At the same time, no obvious selecting variable identifying the responding Tamil sample could be found. There was no significant difference in age distribution or sex distribution between responders and non-responders, 60% of the people returning the questionnaires did not meet the inclusion criteria of being in some way personally affected by the Tsunami (and had hence not completed the full questionnaire), and the distribution in educational level in the responding sample was identical to the national distribution for this minority group. There was also variance in the degree of Tsunami related bereavement, former exposure, number of years in Norway, current mental health problems etc. In addition, the results from the Sri Lankan sample seem to be supported, firstly by the fact that the results in the more stable Acehnese group point in the same direction and secondly it can be argued that the main findings are supported by pre-existing empirical findings. That is, high levels of mental health problems in refugee populations, high degree of former exposure, and an independent contribution of social support, and exilerelated difficulties in explaining current mental health problems.

The low response rate obtained when sending questionnaires by mail to the Tamil sample also illuminates a more general methodological challenge when doing research in refugee populations. Even though
all recommendations were followed, very few persons returned the questionnaire and there was no obvious selecting factor helping us understand who actually responded to the study. The questionnaire was translated and culturally adapted (for more information, see under “methods”), and a reminder was sent after three weeks. Still, a response rate of 10% is poor at best, and makes it difficult to generalise from the results from the Tamil sample. In this case the concordance between the results found in the Aceh sample and the Tamil sample, as well as concordance with existing literature strengthens the tendency found in the obtained results.

Nevertheless, further studies are needed to shed light on the research questions and to eliminate some of the weaknesses of the present study, like low response rate, lack of control group, and different sampling methods in the two sub groups. In addition, studying groups with a high degree of former exposure to trauma, e.g. 3-5, 7 and the high levels of mental health problems, e.g. 5, 11, 12 raises a number of important methodological as well as ethical challenges. First of all, the challenge of finding good measurements that may capture new trauma and stress experiences, and secondly, developing measurements that may register changes in mental health problems related to new events in populations where the level of mental health problems is already quite high. That is, how can we find measures that manage to isolate the impact of one new stressor in populations that have experienced dozens of former stressors, and also detect changes in mental health problems? A design with mixed methods to study the impact of new stressors in such populations may seem to be the best path to chose. A qualitative approach will provide an opportunity to explore and grasp the lived and subjective experience both of the complex here and now situation and that of the added strain, while a quantitative approach can point to associations between the sum of strains and current mental health problems. A combined methods approach will strengthen the possibility for a more holistic picture, and may as such be more commendable also from an ethical point of view, permitting more complex and nuanced voices to be heard. By adding a control group that has not experienced new stressors, such as those related to sudden dramatic incidences in the homecountry, the quantitative part of a mixed design will be substantially strengthened and the thus possibly yielding new information.

Concluding comments
The present study demonstrates the importance of former exposure and exilerelated difficulties in explaining current mental health problems, as well as the protective influence of perceived social support. At the same time it points to important methodological challenges, both related to capturing the influence of additional exposure in groups with high former exposure, as well as challenges related to obtaining satisfying response rates. More studies will be needed in order to deepen our insight into this complex field. And as has been argued above, alternative methodological approaches will be needed, where one relies both on qualitative and quantitative data. Despite shortcomings and serious limitations in this specific study, it points towards an area where little research has been done, and where the need for more knowledge is great. The number of migrants increases steadily, where forced migrants constitute an especially vulnerable group. It is thus important to understand how disasters in their country of origin, like the Tsunami, affect mental health in refugee populations, and how one can assist to reduce the negative impact of such events.
References

15. UN Office of the Special Envoy for Tsunami Recovery. UN, 2006. www.tsunamispecialenvoy.org/country/humantoll.asp (08.03.2007).


Acknowledgements

We are indebted to the Norwegian Centre on Violence and Traumatic Stress Studies that made it possible for us to conduct this study as part of the Tsunami programme. Special thanks to Professor Dr. med. Lars Weisæth and senior research Dr. med. Trond Heir for constant inspiration and necessary feedback. A special thanks also to co-researcher Cand. med. Kåre Moen for his invaluable contribution to this study through engaged and systematic collaboration with the Aceh group residing in Norway. Finally, a student scholarship from the Norwegian Research Council to Signe Hjelen Stige represented an important contribution in the early stage of this study.
The land of milk and honey

A picture of refugee torture survivors presenting for treatment in a South African trauma centre

Monica Bandeira, Psychologist*, Craig Higson-Smith, Megan Bantjes, Psychologist** & Peter Polatin, MD, MPH***

Abstract
Intake data obtained from 55 refugee torture survivors accessing trauma treatment services at a centre in Johannesburg, South Africa, paints a picture of suffering beyond the torture experience. The intake forms part of a more comprehensive monitoring and evaluation system developed for the work done with torture survivors accessing psychosocial services. The diverse sample with different nationalities highlights that torture occurs in many countries on the African continent. It also highlights South Africa’s role as a major destination for refugee and asylum seekers. However, “the land of milk and honey” and the process of arriving here, often poses additional challenges for survivors of torture. This is reflected in the high levels of Post Traumatic Stress Disorder (69%), anxiety (91%), and depression (74%) for our sample, all of which were significantly correlated. The loss of employment status from before the torture experience until the time of intake was great for this sample, impacting on their recovery. In addition the presence of medical conditions (44%), disabilities (19%), and pain (74%) raise serious questions regarding interventions that focus mainly on psychosocial needs. No significant gender differences were found. The paper begins to paint a clearer picture of the bio-psycho-social state of torture survivors accessing services in South Africa, as well as highlighting many of the contextual challenges which impact on recovery.

Key words: torture; PTSD; refugees; South Africa; trauma

South Africa
The history of violence in South Africa has spanned decades. Tribal wars are part of the historic landscape which was forever affected by colonialism and the subsequent system of Apartheid. Apartheid made use of institutionalized and systematic violence to place the control of the majority of the population in the hands of a white minority. The subsequent transition to democracy in 1994 has been characterized by high levels of violent crime which, although on the decline, persist up until today. Indeed, the statistics released by the South African Police Service (SAPS) put the number of reported contact crimes at 685,185 in 2008/20091 (1407.4 per 100 000 of the population or 1,877 per day), including murder, sexual offences, attempted murder, assault with the intent to inflict grievous bodily harm, common assault, robbery with aggravating circumstances, and common robbery.

Refugees in South Africa
Refugee and asylum seekers are not immune to this and violence against foreign-
ers continues to occur. Once within South African borders, asylum seekers are exposed to violent crime and xenophobic attacks, as was seen in 2008. The xenophobic violence was characterised by the attack, or threat of attack, on non-nationals living in townships and informal settlements located within the main urban settings of Gauteng and the Western Cape. Estimations of the total number of people displaced due to these attacks range between 80,000 and 200,000. Between 25,000 and 35,000 Mozambicans and Zimbabweans fled South Africa at this time.

Although South African Law guarantees all people basic civil and political rights, regardless of their nationality or legal status, the necessary human and financial resources needed to offer basic protections to asylum seekers and refugees have not been made available. Torture survivors among this group of refugees have even more challenges to contend with. Broad statistics do not capture the individual experiences that are so important within clinical practice. For this reason two vignettes from recent cases are presented here. Names and other identifying information have been changed to protect the identity of our clients.

Samuel is a Movement for Democratic Change (MDC) supporter from Zimbabwe who reported being tortured on three occasions, experienced internal displacement, and had his property destroyed. He could no longer make a living and was forced to flee to South Africa. In South Africa, he was exploited by a construction company who refused to pay him for work done before he obtained his asylum seeker document. Since arriving in South Africa he has been a victim of two serious violent crimes. He was robbed at gun point and then kidnapped by people posing as customers for his business. The kidnappers drove him around in their car demanding money that he did not have. Fortunately, he managed to jump out when the car came to a stop and flee. More recently, while working as a security guard, he has witnessed many other violent events. He has been unlawfully arrested for loitering while crossing a park on his way home from shopping and forced to pay a bribe for his release. He has also been the victim of petty thefts in the unsafe accommodation that poverty forces him to share.

Maria is a professional from Central Africa who was severely tortured by rebel groups and by government officials while in detention. Her husband and other family members were killed as punishment. She fled to South Africa with her two small children. A month after her arrival xenophobic violence broke out where she was living. She became suicidal during this time. She has been contacted and threatened repeatedly by officials from the Democratic Republic of the Congo (DRC) and fears for her life here in Johannesburg. Maria has had many problems renewing her asylum document each month. She sleeps overnight with her children at the office of Home Affairs so as to get a place in the queue the following morning, but is often shifted to the back for not paying a bribe. One night armed robbers attacked the people in the queue, most of whom fled screaming in different directions. This experience retraumatized her, because it reminded her of the attack by the rebels in the DRC. She explained that the affected asylum seekers were offered shelter inside the Home Affairs building for the night, but only in exchange for a bribe. Maria does casual jobs cleaning and cooking in a crèche. She has been living in an unsafe shared house where she cannot control who enters and exits the property and whether the doors and gates are locked or not.

Samuel and Maria’s stories illustrate
some of the challenges and complexities that asylum seekers in South Africa face. It is important that service providers understand these complexities deeply in order to provide effective care and support.

Centre for the Study of Violence and Reconciliation, Trauma and Transition Programme
The Centre for the Study of Violence and Reconciliation (CSVR) is a multi-disciplinary institute whose primary goal is to use its expertise to build reconciliation, democracy and a human rights culture, and to prevent violence in South Africa and in other countries in Africa. The Trauma and Transition Programme (TTP) of the CSVR aims to sustain democracy by addressing the issues of unresolved trauma, torture, criminal violence and forced migration through psychosocial support, research and advocacy in South Africa and the continent.

TTP was set up in 1989 to offer a free counselling service to victims of political violence. Since the mid-1990s there has been a shift from political violence to criminal violence within the country. From the late 1990s, TTP began counselling refugees and asylum seekers, individuals and groups from various African countries who had experienced violent conflict in their home countries and/or xenophobic violence in South Africa.

With the support of the Rehabilitation and Research Centre for Torture Victims (RCT), TTP has embarked on a project aiming to strengthen the struggle against torture in South Africa and the African region. One of our objectives is to develop a comprehensive Monitoring and Evaluating (M&E) system for the psychosocial services provided to victims of torture. These services include: counseling; interpretation; support with referrals to other organisations; and assistance with information regarding asylum/refugee application processes. The aims of M&E include the creation of spaces for reflection and learning, and it is hoped that this process will help us learn more about our interventions and assist clinicians in improving services to victims of torture.

Evaluation methodology
The data presented here is part of a more comprehensive M&E process initiated in mid-2007. The development of all M&E instruments and the system itself was informed by current theory and achieved through collaboration between clinical staff, researchers, external consultants, and RCT staff. The system has changed over time to accommodate challenges encountered through implementation. The intake is aimed at providing detailed information for clinicians to guide their interventions, and to establish a baseline of each client’s functioning against which progress can be measured. In the end, the intake form included demographic information; the Harvard Trauma Questionnaire;4 The Hospital Anxiety and Depression Scale (HADS);5 several questions which emerged from the International Classification of Functioning, Disability and Health (ICF)6 as well as questions regarding medical conditions, disabilities, pain, and substance use.

Questions relating to the ICF indicators were developed by having clinicians identify which indicators are most relevant to torture survivors. These were then prioritized as a way to reduce the list of indicators to a manageable number. Once certain indicators were agreed upon, the research team developed questions relating to these indicators. For example, clinicians indicated that under Support and Relationships of Environmental Factors of the ICF, indicator E355 – Health Professionals should be included. According
to the ICF “This chapter is about people or animals that provide practical physical or emotional support, nurturing, protection, assistance, and relationships to other persons, in their home, place of work, school or at play or in other aspects of their daily activities. The environmental factor being described is not the person or animal, but the amount of physical and emotional support the person or animal provides.”. In line with this the following question was developed:

In general, do health professionals support or slow down your recovery at the moment? (E355):

1. Slow down a great deal
2. Slow down a little
3. They have no impact on my recovery
4. Support a little
5. Support a great deal
9. N/A or unknown

The data was derived from a newly developed system of M&E. In the beginning data capture was limited but this did not prevent clinicians from seeing clients. Over time, with capacity building and changes in organisational culture, levels of data capture are increasing. However, instruments have not been standardized for this population.

All non-South African adult clients that completed the intake from the beginning of the M&E project (April 2007) until the time of writing this paper (October 2009) and who reported a history of torture were included in the sample. All clients gave written informed consent to participate in the M&E process. Clients were free to refuse to participate and were not penalized if they so chose. In order to ensure that clients are supported and able to complete the intake, a number of steps have been taken. Clients first attend a counselling session before completing the intake. This allows the client to receive support immediately. The clinician explains the M&E process and sets up the intake before the following session. Intakes are done either by clinicians or by Psychology Masters students who have received additional training on the assessment and support of torture survivors. All information in the M&E was captured with client codes so that the research team did not have access to identifying information. This allowed us to maintain both confidentiality and anonymity.

Introducing data gathering systems into clinical practice is challenging and takes time. Nevertheless, it offers important possibilities for improving clinical practice through structured analysis and reflection.

**Sample**
A total number of 55 clients were included in the sample. Of these, 39 (71%) were referred to TTP by an external person or organization.

Clients came from eight different countries with the majority coming from Zimbabwe (Figure 1).

The sample was closely divided along gender lines, 29 women (53%) and 26 men (47%). The oldest client was 54 years of age

![Figure 1. Nationality.](image-url)
while the youngest was 19 at the time of intake. The majority of clients were between the ages of 22-47 (86%). Mean age for the sample was 34 with a standard deviation of 9.10.

Almost half of the clients (24) reported being married at the time of intake (Table 1).

Most clients (35%) were living with their family (which includes living alone with their children). Others were living with friends (19%); in a shelter (21%); alone (9%); with strangers (7%); or with their partner/spouse (6%). The majority of clients (70%) had children. Most of these had two children, while three clients reported having 6 children. Mean number of children was 2 with a standard deviation of 1.76.

Before the torture experience, the majority of clients were employed within skilled or highly skilled jobs. However, at the time of intake most were unemployed (Table 2).

Results

Psychiatric considerations

The Harvard Trauma Questionnaire (HTQ) provides three scores: a Total Score; a DSM-IV Post Traumatic Stress Disorder (PTSD) Score, and a Self-Perception of Functioning Score. The Harvard Program in Refugee Trauma (HPRT) which developed the instrument, offer no cut-off score for the Total Score, rather saying that the higher the total score, the more likely it is that the respondent has symptoms specifically associated with trauma. Functioning Scores also do not have cut-off values but the HPRT recommend that these be used as a rough guideline for the clinician in assessing the respondent’s overall capacity to meet the challenges of everyday life. Self-Perception of Functioning Scores can range between 1 and 4, with a higher score indicating a more negative self-perception of function-

<table>
<thead>
<tr>
<th>Table 1. Marital status.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital status</td>
</tr>
<tr>
<td>Currently married</td>
</tr>
<tr>
<td>Never married</td>
</tr>
<tr>
<td>Separated</td>
</tr>
<tr>
<td>Widowed</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 2. Changes in employment status linked to torture.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-torture employment %</td>
</tr>
<tr>
<td>Highly skilled/professional</td>
</tr>
<tr>
<td>Semi-skilled</td>
</tr>
<tr>
<td>Skilled</td>
</tr>
<tr>
<td>Student</td>
</tr>
<tr>
<td>Unemployed</td>
</tr>
<tr>
<td>Unskilled labour</td>
</tr>
<tr>
<td>Other or missing</td>
</tr>
<tr>
<td>Total (n=46)</td>
</tr>
</tbody>
</table>
Functioning Score for our sample was 2.69 (standard deviation = 0.68). The group presented with a mean score of 2.88 for PTSD (standard deviation = 0.67), with 38 people (69%) being checklist positive for PTSD.

The HADS takes 2 to 5 minutes to complete and provides a score for depression and a score for anxiety. For either subscale a score of 0 to 7 could be regarded as being in the normal range, a score of 11 or higher indicating probable presence of the mood disorder and a score of 8 to 10 being just suggestive of the presence of the respective state. This instrument has also been tested in many contexts and found to have good reliability and validity.

The results for this group in terms of anxiety and depression (n=54) are represented in Table 3.

The mean score for anxiety was 14.91 (standard deviation = 4.63) while the mean score for depression was 13.26 (standard deviation = 4.33). The correlation between anxiety, depression and PTSD using Pearson’s Correlation can be seen in Table 4 (n=52).

### Table 3. Hospital anxiety and depression scale scores.

<table>
<thead>
<tr>
<th></th>
<th>Anxiety %</th>
<th>Depression %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Borderline</td>
<td>2</td>
<td>19</td>
</tr>
<tr>
<td>Clinical</td>
<td>91</td>
<td>74</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

### Table 4. Correlations between PTSD, depression and anxiety scores

<table>
<thead>
<tr>
<th></th>
<th>PTSD and depression</th>
<th>PTSD and anxiety</th>
<th>Anxiety and depression</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson’s Correlation</td>
<td>r=0.71 p=0.0000</td>
<td>r=0.80 p=0.0000</td>
<td>r=0.72 p=0.0000</td>
</tr>
</tbody>
</table>

Impact of environment (ICF indicators)

Questions were developed based on the ICF which look at the impact of authority figures (such as police officers and Home Affairs officials); health professionals and family members. Later on, due to the developmental nature of this project, the M&E team introduced further questions relating to functioning, based on ICF indicators. These questions related to learning and applying knowledge; ability to manage tasks and demands; and interpersonal interactions and relationships. Although the data set is more limited (n=20), these results provide a more nuanced picture of torture survivor’s functioning, and have been included with the rest of the data.

When asked about the impact of authority figures on their recovery (n=50) 29 clients (58%) reported that authority figures slow down recovery (a little or a great deal). 22 (43%) and 11 people (21%) of our sample reported some form of harassment from the Department of Home Affairs (the Government department responsible for approving refugee status) or the Police respectively. This is illustrated in the following quote, “I got arrested by a police constable on the streets finding a job to sustain myself. I had two hundred Rands in my pocket which I lost to this constable because I was found without any legal document which permits me to stay here in South Africa.” 26 people (59%) reported (n=44) that health professionals support their recovery (a little or a great deal), while 26 people (59%) reported that family
members support their recovery (a little or a great deal).

When asked questions regarding functioning the following answers were forthcoming (Figure 2).

**Functioning and psychiatric conditions**

An analysis of the correlations between the functioning scores and the psychiatric scores is displayed in the table below. Measures of functioning were not normally distributed; therefore the non-parametric Spearman’s Rank Coefficient was used. All functioning scores except managing connections with family were significantly correlated to one or more psychiatric conditions. Furthermore, managing daily tasks and managing symptoms are significantly correlated with all for psychiatric scores, namely depression, anxiety, PTSD, and self-perception of functioning.

<table>
<thead>
<tr>
<th></th>
<th>Depression</th>
<th>Anxiety</th>
<th>PTSD</th>
<th>Self-perception of functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solving complex problems</td>
<td>n=22</td>
<td>n=22</td>
<td>n=22</td>
<td>n=22</td>
</tr>
<tr>
<td></td>
<td>R=0.3589</td>
<td>R=0.4077</td>
<td>R=0.4953</td>
<td>R=0.5852</td>
</tr>
<tr>
<td></td>
<td>p=0.1009</td>
<td>p=0.0597</td>
<td>p=0.0190</td>
<td>p=0.0042</td>
</tr>
<tr>
<td>Managing daily tasks</td>
<td>n=22</td>
<td>n=22</td>
<td>n=22</td>
<td>n=22</td>
</tr>
<tr>
<td></td>
<td>R=0.6925</td>
<td>R=0.6244</td>
<td>R=0.6822</td>
<td>R=0.6809</td>
</tr>
<tr>
<td></td>
<td>p=0.0044</td>
<td>p=0.019</td>
<td>p=0.004</td>
<td>p=0.0005</td>
</tr>
<tr>
<td>Managing symptoms</td>
<td>n=22</td>
<td>n=22</td>
<td>n=22</td>
<td>n=22</td>
</tr>
<tr>
<td></td>
<td>R=0.5903</td>
<td>R=0.5735</td>
<td>R=0.6207</td>
<td>R=0.5579</td>
</tr>
<tr>
<td></td>
<td>p=0.0038</td>
<td>p=0.0053</td>
<td>p=0.0020</td>
<td>p=0.0070</td>
</tr>
<tr>
<td>Controlling reactions to others</td>
<td>n=21</td>
<td>n=21</td>
<td>n=21</td>
<td>n=21</td>
</tr>
<tr>
<td></td>
<td>R=0.3527</td>
<td>R=0.5558</td>
<td>R=0.5562</td>
<td>R=0.5563</td>
</tr>
<tr>
<td></td>
<td>p=0.1168</td>
<td>p=0.0089</td>
<td>p=0.0088</td>
<td>p=0.0088</td>
</tr>
<tr>
<td>Managing family connections</td>
<td>n=18</td>
<td>n=18</td>
<td>n=18</td>
<td>n=18</td>
</tr>
<tr>
<td></td>
<td>R=0.1719</td>
<td>R=0.1852</td>
<td>R=0.0886</td>
<td>R=0.2128</td>
</tr>
<tr>
<td></td>
<td>p=0.4952</td>
<td>p=0.4619</td>
<td>p=0.7264</td>
<td>p=0.3966</td>
</tr>
</tbody>
</table>

Figure 2. Key dimensions of functioning.
Physical health

Clients were asked if they suffered from any medical conditions, disabilities and pain. If they responded yes, they were asked if this was due to their torture experiences. 24 clients (44%) reported suffering from a medical condition. A broad range of medical conditions were reported including restlessness, depression, neck and head aches, eye related problems, dental problems, foot pain, anemia, difficulty urinating, high blood pressure and heart palpitations. Table 6 provides information on the categories of medical conditions experienced as well as their link to the torture experience.

10 people (19%) reported suffering from a disability all of whom reported that it was due to the torture they had experienced. Most (60%) reported a disability in the head or neck region. The majority of the sample (40 people or 74%) reported experiencing some form of pain. Of the 79 incidences of pain reported, 66 (84%) said the pain was due to torture. The areas of pain are outlined in Table 7.

Table 6. Categories of medical conditions reported.

<table>
<thead>
<tr>
<th>Category of self-reported medical condition</th>
<th>Incidence</th>
<th>Due to Torture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory Problems</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Emotional difficulties</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Problems with eyes</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Difficulties in the neck or head area (including headaches, and ear or neck problems)</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Problems with teeth</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Pain/problems in the back, ribs, or abdominal areas</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>Pain in feet or legs</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Circulatory difficulties</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Other (2)</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total (41)</td>
<td>41</td>
<td>29</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Table 7. Areas affected by pain.

<table>
<thead>
<tr>
<th>Pain</th>
<th>Incidence</th>
<th>Due to torture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder region</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Upper extremity</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Genital pain</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Abdomen</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>Chest pain</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Lower extremity</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Head and neck</td>
<td>21</td>
<td>17</td>
</tr>
<tr>
<td>Generalised pain</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Back pain</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>66</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>84%</td>
</tr>
</tbody>
</table>

Despite the high incidence of medical conditions, disability and pain reported by the sample, only nine clients indicated that they were taking prescription drugs. Reported use of substances such as cigarettes, beer, wine, and spirits was very low for this sample with 84%, 80%, 80% and 90%
respectively saying they do not use any of these substances.

Discussion
According to the Office of the United Nations High Commissioner for Refugees (UNHCR) 2007 Global Trend Report, approximately 67 million people around the world had been forcibly displaced by the end of 2007. South Africa had the second highest number of new claims for refugee status in 2007, namely 45,600. In fact, since 2002, South Africa has received more than 251,000 individual asylum applications, making it one of the largest recipients in the world. Although South Africa is a favoured destination for people seeking refuge, serious challenges face asylum seekers within the country. South Africa had a total asylum case backlog of over 89,000 cases in 2007. Often, asylum seekers are forced to wait several years before they are informed on whether or not they are to receive refugee status. A large number of asylum seekers are from Zimbabwe, with 85% of all Zimbabwean asylum requests being lodged in South Africa. The number of unconfirmed estimates of Zimbabweans in South Africa is between one and nine million.

Survivors of torture accessing our services present with a complex clinical picture which is continually impacted by contextual challenges. This paper is based on a clinical sample and therefore not representative of refugee torture survivors generally. We know that many clients accessing our services are somewhat aware of what services we provide because the majority (75%) of our sample were referred to us by an outside individual or organisation. The high influx of Zimbabweans and the high levels of human rights violations (including torture) reported there are clearly reflected in our sample which includes a large percentage of Zimbabweans. A recent report profiling human rights violations and torture in Zimbabwe, indicates that since July 2001, 40,559 human rights violations have been reported to the Zimbabwe Human Rights Non-Governmental Organisation Forum. The data indicates an increase in reports of torture from 136 cases in 2005 to 723 cases in 2008. The report also compares reported violations in “election” and “non-election” months. The number of reports in “election months” is significantly higher than in “non-election” months, clearly demonstrating the political factors contributing to millions of Zimbabweans fleeing into South Africa.

The literature suggests that men are more likely to report torture than women. In contrast to this, this sample is evenly divided between men and women. This may be linked to women being more likely than men to seek assistance.

The sample was almost equally divided in terms of those who were married and those who had never been married, were widowed, or separated. The ages of the majority of clients indicate a group of people at a stage of their lives where they should be the most productive. This raises questions regarding the impact of the torture on their ability to access and obtain resources, in the short to long-term. 37% of the sample have what could be considered “vulnerable” living conditions, with strangers, alone or in a shelter. 38% reported living with their families, which could include single parents living alone with their children. This population group is a particularly vulnerable one within South Africa.

The South African Government does not presently maintain refugee camps. Herman highlights the need for securing safety prior to trauma treatment. Given the vulnerable living conditions in which our client group works, the question of what can and cannot be dealt with within the therapeutic space becomes a
central clinical consideration. The majority of clients reported having children, which could burden them additionally with addressing current needs as well as coping with the prior torture experience. Some of these clients had to flee without their children, creating yet another stressor.

Changes in employment status from before and after the torture experience are significant. These changes may not be completely linked to the torture experience but could speak to the change in context experienced. Because many are asylum seekers, securing employment can be difficult, due to xenophobic sentiments as well as difficulties obtaining legal status. The loss in employment and corresponding income could influence clients’ ability to cope with their experience of torture. This loss in status could also impact on self-esteem, with survivors no longer feeling that they are able to provide for themselves and/or their families.

Besides these difficulties, refugees face many ongoing challenges, including the fear of being arrested, persecuted or tortured if they return to their home countries, living with a history of discrimination, being traumatized by the migration process (especially those who entered host countries unlawfully), living in poor neighborhoods, being alone, not knowing the culture or language of the host country, and living in a host country that in some way may have supported the regime responsible for their persecution.

The average Self-perception of Functioning score for our sample indicates a poor perception of their ability to function. The gender differences on this score are not significant but do indicate that male torture survivors may have a slightly more negative perception of their capacity to meet the challenges of everyday life. Men could be placing more pressure on themselves to cope with the difficulties of their new situation. It is likely that being unable to provide for one’s family has a greater impact on perception of functioning for men than for women. In addition, services for refugees in South Africa tend to prioritise women and children. This may have the unintended result of further marginalizing and disempowering men as well as fragmenting refugee families.

Studies have found varied PTSD rates in survivors of torture. According to Johnson and Thompson, PTSD prevalence in refugee torture victims ranges from 14 to 92%. Masmas et al. found a 63% PTSD rate among tortured newly arrived asylum seekers in Denmark.

High levels of PTSD within our sample reflect the extremely vulnerable situation in which people accessing our services find themselves. Not only have they suffered torture but many may have been exposed to other traumas since the torture experience. Securing safety within the South African context is hardly possible, thereby increasing vulnerability for PTSD. No major gender differences emerged in terms of PTSD scores.

The majority of clients were checklist positive for both depression and anxiety, making the clinical picture even more complex. Depression has been strongly linked with PTSD and the strong correlation between the two in our sample clearly highlight the complexity of these cases. It also highlights the need for pharmacological intervention for this group. Given the experiences of our sample it is not surprising that they score significantly higher in terms of depression.

The results show that many clients felt in some way supported by their family and/or by health professionals. When asked about people in positions of authority, however, the results were reversed. Over half the sample...
felt that people in positions of authority slowed down their recovery. Indeed, clients do report instances of harassment by police officials and poor treatment at refugee reception offices. When people are still exposed to threats, recovery from PTSD and other disorders is likely to be compromised. External factors impact on the client’s state. This information can also assist clinicians to identify, reinforce, and expand support structures to areas where clients have additional identified needs, and to raise awareness and promote advocacy within police forces, health officials and those who are responsible for asylum determination.

The majority of clients reported having mild or moderate difficulties in managing daily tasks and solving complex problems. The majority of clients reported difficulty in managing their symptoms and controlling their reactions to others. This will clearly impact on their ability to function in society and gain access to resources or services they need. Clients were equally divided between “no difficulties” and “some” or “severe” difficulties in relation to their connections with their families. This may be linked to difficulty in communicating with family members who remained in the country of origin. This information provides clinicians with a better sense of where a client’s strengths and weaknesses may be within the area of every day functioning. Given the complex contextual stressors many torture survivors in South Africa encounter (discussed above), it is no surprise that their ability to function is frequently negatively impacted.

Analysis of the links between functioning and dysfunction scores shows that psychopathology is related to a loss of functioning. It is interesting to note that anxiety disorders are particularly associated with loss of functioning in multiple spheres whereas depressive symptoms, while impacting on management of daily tasks and disruptive symptoms, do not impact on problem solving and reactions to others. Tortured refugees reported that their functioning within family networks was largely unaffected by their symptoms.

Health and mental health needs have been shown to be the highest priority for torture survivors. Leidl and Knaevelsrud highlight the link between pain and PTSD and how this plays a role in treatment. The wide array of medical conditions, disabilities and pain reported by the sample, primarily related to their experiences of torture, highlights the need for medical care as part of any intervention. Physical impacts may continue to reduce a client’s ability to recover and cope, but accessing medical care may also be problematic for this group.

Indeed, Higson-Smith’s study, which explored exiled torture survivors’ torture related needs and experiences of health services in Johannesburg highlighted health-related difficulties. The study indicated that far fewer than those who had listed significant and chronic symptoms or were in need of health care had actually received any care through the South African health services. This may be linked to discrimination and even abuse at the hands of health personnel, negatively impacting on recovery. In fact, respondents in the 2007 study rated the level of health care facilities in South Africa highly, but rated health care providers poorly. The report highlights incident after incident in which tortured exiles were turned away from health institutions or were badly treated. The line between physical and psychological treatments becomes blurred when working with victims of torture, and as such it becomes impossible to work therapeutically without attending to the physical difficulties experienced by clients.
Conclusion
The M&E system developed and established within TTP of the CSVR provides clinicians with information regarding torture survivors accessing their services. In order to provide better services it is central that clients are assessed in a systematic way. This process provides us with information that clearly influences treatment options and strategies. It highlights areas of concern in terms of functioning and points to ways in which clients function well.

The data obtained paints a complex clinical picture of refugee torture survivors accessing services in what some refer to as “the land of milk and honey”. It highlights some of the contextual factors that negatively impact on the recovery process of this group, which clinical interventions will need to take into consideration. It is clear that therapeutic work with refugee victims of torture in South Africa is complex and the extreme contextual factors will impact on clinical interventions provided.

References
Transitory ischemia as a form of torture: a case description in Spain

Pau Pérez-Sales, MD, PhD, Psychiatrist*, **, Alberto Fernández-Liria, MD, PhD, Psychiatrist **, ***, ****, Marina Parras, MD***, ******, Gina Engst, PhD***

Abstract
Transitory Ischemia is a form of torture that has been insufficiently described and studied in forensic and psychiatric studies of torture. It is usually left out of medical evaluation reports and not explored in detail under the Istanbul Protocol. Although ischemia, when experienced during brief periods of time, does not produce any detectable sequelae, prolonged periods of ischemia can be detected by either clinical examination or electromyography. The authors describe the use of brief periods of ischemia as a torture technique against a non-violent activist in Seville (Spain).

Key words: torture, ischemia, white torture, evidence-free torture, handcuffs, Spain

One of the meanings of the expression White Torture refers to the use of torture techniques that act against the body and/or psyche of the tortured person without leaving any external marks on the body. It encompasses sophisticated techniques where physiological manipulation results in extreme physical suffering without leaving actual evidence on the body. Other authors prefer the term Evidence-free or Clean Torture.¹

Torture by ischemia involves the restriction of blood supply to different parts of the body. This causes hypoxia and acidosis as well as sharp unbearable pain and profound psychological suffering associated with fear of permanent damage and necrosis. When ischemia is carefully induced for increasing periods of time, or in alternating parts of the body, it leaves the victim with no detectable sequelae. This clearly makes Ischemia a form of Evidence-Free Torture.

Ischemic torture is not included in most classifications of torture², ³ and not explicitly included in the list of torture techniques to be assessed in the Istanbul Protocol.⁴ The Protocol includes Forced Positions and Use of Restraints but not ischemia by itself (see chapter 4). Electromyography (EMG) is not included in the list of diagnostic tools for assessment (see Annex II of the Protocol) although it has been included in additional guidelines specifically addressing medical assessment.⁵

There are no studies that describe the systematic use of ischemia over short periods as a pain-inducing white torture, although it is likely to be a widespread practice.³ Different studies have tested pain tolerance to
a tourniquet in the forearm, arm, and wrist in surgical procedures. Maury\(^6\) conducted a prospective, randomized controlled trial comparing the duration of upper and forearm tourniquet tolerance in 24 healthy volunteers recording the time elapsed from application of the tourniquet until volunteers requested deflation. The average time for the upper arm tourniquet was 18 (range 10-26) minutes and for the forearm tourniquet 25 (range 12-52) minutes. In a similar study by Hutchinson et al,\(^7\) there was complete paralysis at about 30 minutes of ischemia. Two peaks of discomfort were found, one beneath the tourniquet prior to deflation and one in the hand two minutes after deflation. Paresthesias in the ulnar nerve distribution were the earliest changes experienced; however complete numbness was first experienced in the median nerve distribution. Ischemia provoked by an arterial pressure device is incomplete; however, ischemia provoked by ropes or handcuffs around the wrist is expectedly more severe and painful.

Vietnam Prisoners show neuropathies linked to chronic hand ischemia from the use of extreme tying restraints.\(^8\) In a follow-up study with former prisoners of war (POWs)\(^9\) diagnosed with upper extremity peripheral neuropathy (UEPN) due to extreme restraint resulting in prolonged ischemia in the hands, 79% of the POWs experienced some numbness or tingling 25 years later, while 63% experienced pain in one or both hands. Although the average severity rating for numbness and pain was mild, 23% of the POWs still had moderate to severe pain. In another prospective study of handcuff neuropathies with 41 patients, Grant and Cook,\(^10\) using clinical exploration or electromyography, found widespread affectionation of the radial, medial and ulnar nerves, which in some cases were severe and permanent.

**Case description**

A.T. is a 40-year-old Spanish male. He is an activist in a non-violent group in Seville (Spain). He took part in a peaceful action intended to slow down or impede the eviction of Casas Viejas, a building which housed an occupied social centre for some years.

During the months before the eviction, the group had built a tunnel below the entrance of the building. At the end of the tunnel there was a chamber with light, ventilation, and some food. Two metallic rings had been fixed to the walls opposite the entrance door. On November 29th, 2007, when the police brought machines to demolish the Social Centre, two activists, one of whom was A, climbed into the tunnel and chained their right arms to the metallic rings\(^11\) fixed at the end. The position of the construction of the tunnel and of the activists within made it impossible for firemen or policemen to access it and cut the chains.

The idea was to engage in pacifist resistance and to focus media attention on the demolition. A similar action undertaken by an activist in Britain had recently managed to delay an eviction for more than a month. The local police in Seville had information on the intentions of this group as well as this recent event in Britain. A special officer told the two activists that the action would be over that same day and that they would be taken out of the tunnel by any means possible.

Police were unsuccessful at breaking the activists' passive resistance when they confiscated food sources, cut ventilation systems and pulled at their free arms with force. The activist’s screams of pain were so strong that police feared their pulling might do permanent damage to their arms. After considering the situation, the police decided to coerce the two men by inflicting systematic ischemia in their left arms. This included (see Figure 1):\(^1\) Firmly tying a rope to the...
left wrist of each activist, cutting the flow of blood, (Figure 2) Forcing the activists to close their hands into a fist. The police then very tightly wrapped both the activists’ left hands in adhesive tape, with successive layers, increasing the ischemia induced by the rope and impeding any movement of their hands. Their hands were wrapped for about fifteen minutes (a critical time to induce almost complete ischemia in the palm and fingers). For one of the activists the pain became unbearable and he finally had to give up his act of resistance. After being released of the adhesive tape, he freed himself from the chains.

A.T. stayed in spite of the torture. Five minutes later his hand was released. The pain of the blood returning to the tissues was also profound. The police waited for ten minutes and once the pain ceased, they began to repeat the whole procedure from the beginning. Once A’s hand was completely wrapped, the police tied A’s hand to his right foot (Figure 3) and forced him into an awkward position that completely curved his back and contributed to the ischemia. Forced positions have been widely used by American, British, and French armies as a method of torture. Varying forms of it have been used in almost all countries (called Crapaudine in francophone countries, Avioncito, Banana, Balancin and other names in Latin America, the “Scorpion position” in Guantanamo, etc). When combining ischemia and forced positions, the victim increases ischemia his/herself when using movement in attempts to alleviate back pain in the forced position.

The activist resisted the pain of this second ischemia for about twenty minutes but eventually gave up the resistance action. Ischemic torture was inflicted on him for more than one hour.

Figure 4 shows how A’s hand looked immediately after releasing the bandages. When he was taken out of the tunnel and arrested, he showed no marks from the torture inflicted upon him. Therefore, even though the people waiting for him outside already knew what had happened, it was impossible for them to document this torture. This missing proof became the activist’s word against that of the police. A did not press charges against the police, but gave testimony at an informal press conference. However, the Seville General Attorney brought charges of libel against him for using the word “torture” in his statements about the police and A now faces a petition by the attorney for four years in jail.
Conclusion

Ischemia is an understudied form of White Torture. It does not require sophisticated instruments but produces intense and unbearable pain while leaving no visible marks. When it is applied for short periods of time, or in alternating positions, it leaves no permanent damage to the body. Although usually considered as a consequence of restraints or forced positions, producing ischemia should be considered a severe torture technique by itself and when linked to the interruption of a bodily function (for example suffocation, among others).

Ischemic torture is a form of torture that has yet to be adequately researched and written about. It is usually not included in forensic reports and evaluations of the consequences of torture. Although ischemia, when experienced in brief periods of time, does not leave physical marks or sequelae, prolonged ischemia can produce permanent sensory-motor damage that can be detected by clinical examination and EMG. The use of this torture method, whether by handcuffs or other restraints, along with forced positions, should be considered as a distinct category in medical and psychiatric evaluations of presumed cases of torture.

References:
Group therapy model for refugee and torture survivors

Ibrahim A. Kira PhD*, Asha Ahmed PhD*, Vanessa Mahmoud, MA* & Fatima Wassim, MA*

Abstract

The paper discusses the Center for Torture and Trauma Survivors’ therapy group model for torture survivors and describes two of its variants: The Bashal group for African and Somali women and the Bhutanese multi-family therapy group. Group therapies in this model extend to community healing. Groups develop their cohesion to graduate to a social community club or initiate a community organization. New graduates from the group join the club and become part of the social advocacy process and of group and individual support and community healing. The BASHAL Somali women’s group that developed spontaneously into a socio-political club for African women, and the Bhutanese family group that consciously developed into a Bhutanese community organization are discussed as two variants of this new model of group therapy with torture survivors.

Key words: group therapy, refugees, wraparound approach for torture treatment, community healing

Introduction

There is an increased concern about the relevance and effectiveness of current mental health programs and existing interventions that are derived from individualistic western cultures and based mostly on addressing single personal identity trauma, for example sexual abuse, with clients from different cultures and with refugees and minority populations who are cumulatively traumatized with personal and collective identity traumas.1-3

In general, treatment of refugees who have survived violence and torture is complicated and not manuals-bound. Most evidence-based traditional group therapies have been developed to address specific single personal identity trauma, e.g., sexual abuse, or post such single trauma symptoms using different cognitive behavioural, psychodynamic or other theoretical and technical approaches. However, refugees and torture survivors went through, and are possibly still going through, a host of different trauma types that include personal and collective identity traumas and which have cumulative effects. Cumulative trauma dynamics are different from the dynamics of single trauma.4 Additionally, refugees and torture survivors usually belong to different cultures which are more collective than individualistic and may belong to different religious heritages other than those form which such group therapies were developed.5 It is important to adapt current evidence-based group therapies, regardless of their theoretical and
technical approaches, to address cumulative trauma and collective identity traumas that clients endured, or are enduring, in order to be acceptable and effective with refugees and torture survivors. Most refugee populations and torture survivors come from collective cultures and the core (or index) traumas for most of them are collective identity traumas. In the case of ethnic persecution, which is a collective identity trauma, the group character is even more evident. The traumatized refugees have become victims of persecution and or torture because of their belonging to a certain group. In collectivistic culture, healing usually take place within the group context. When people get persecuted because of their group characteristics, a group therapy seems logical and has more therapeutic potential. In collectivistic cultures, it is common for families and community elders or religious or political leaders to be the first source of support for personal problems or health concerns. Family group therapy and community work can be especially effective. Using modified or newly designed group interventions can be a potentially effective component in a wraparound multi-component, multi-model process for treating victims of political violence.6-8

Torture consists of different traumas that target an individual or group. Collective identity is an important factor in this complex trauma. The multi-systemic, multi-component, wraparound psychosocial rehabilitation approach for torture treatment addresses the three systems affected by torture: The individual, family members and the group.6-8 Group therapy for torture survivors is an important component of this model. Group therapies in this model extend to community healing. Groups develop their cohesion in order to graduate to a social community club or initiate a community organization. New graduates from the group join the club and become part of the social advocacy process and of group and community support and healing. Following this model, the Centre for Torture and Trauma Survivors (CTTS) currently conducts family and women’s groups for Iraqis, a Burmese men’s group, a Bhutanese family group, and an African women’s group of members who survived both torture and HIV (caused by rape during torture). In the following, we describe two of these groups as two variants of the model where each ends up establishing a sustainable community organization, the Bashaal women’s group and the Bhutanese multi-family group, albeit in different ways.

Bashaal: a comforting shoulder
In August 2006, CTTS began a therapeutic group for Somali, Ethiopian and other Sub-Saharan women who had suffered war trauma and torture. The group was led by a Somali case manager/community liaison and a consulting therapist. They were able to combine the case manager knowledge of Somali culture and language with the therapist’s experience with trauma and dissociation. They began the group by focusing on the common thread of female genital circumcision.

In the following months the group focused on the women’s support of each other, the importance of their faith and culture in their survival, and their need for help in interfacing with systems. In the process of addressing day-to-day concerns and health problems, the women began to talk about the trauma they had experienced.

Three group changes have marked the growing empowerment of the women. In November 2006, the group members took “ownership” of the group by naming it Bashaal, which refers, in Somalia, to a late afternoon women’s gathering in the pres-
ence of wise elders, a time to share their stories of troubles and triumphs. They share ginger tea and dates, while relaxing after the day’s chores. The second significant change was to move the group from the offices of CTTS to a community room in the heart of the Somali and Ethiopian community, near the main Masjid mosque. The organization and use of the center was negotiated by the physician, with the support of the Somali community. The room is furnished in a traditional Sub-Saharan manner and is cared for by the women. In the summer of 2008, a new therapist started a second women’s group with the Somali case manager/community liaison, while the first group continued as a self-sufficient group, sometimes mentoring the new group!

The group has interpreters and various interns who assist and visit and who help members reach the goals they have set for the group. The goals of the group are:

a) To give members a safe place to gather and to talk about their concerns, including their recovery from torture;
b) To assist in the acculturation and immigration process by discussing cultural and religious differences they encounter;
c) To increase members’ feelings of personal empowerment and mastery in various aspects of their lives through traditional women’s handicrafts and basic living skills;
d) To diminish symptoms of PTSD, anxiety and depression through psychotherapy and support;
e) To form a social organization that brings women out of isolation and that can eventually be maintained by members with a steady core membership.

After an initial assessment of the potential group members’ experiences with torture and trauma, using the instruments developed for the Center for Torture and Trauma, approximately 20 members were selected by the case manager for membership in the group. Meetings are held once a week, on Fridays, prior to Jumah (Friday) prayers. Participants are transported to meetings or arrive via public transportation. Refreshments are often served, particularly tea and sweets. Members greet each other traditionally and get to know the rules of the group. Confidentiality, privacy and safety are emphasized in the group.

The therapist facilitates a therapeutic group process, incorporating relaxation breathing and guided imagery for stress relief, pain management, and relief from intrusion phenomena. The group is organized around a theme or activity each week, pre-selected by the members and the therapist the week before. Themes include: immigration experiences, parenting, marriage, communicating with doctors, tribal conflict, difficulties in protecting and raising sons, finding husbands for daughters, maintaining authority with children, memories, nightmares and dreams, financial difficulties, cultural differences, divorce, losses, grief, rage and loneliness. Activities can include crocheting, knitting, quilting, drawing, sewing, simple automobile maintenance, driving tests, scrapbooking, jewelry making, etc. These activities are all activities they can continue outside of the group. They are normalizing, calming and soothing to the members. While they are working on a project they hold their discussions, just as one might on a visit to a friend. Within this context, the shame and guilt that they might otherwise feel when thinking or talking about many issues is diminished. Members look forward to these meetings every week. They report using their crafts as ways to calm and soothe themselves at home when times are difficult. They are supportive and respectful of one
another. They cry and laugh together and celebrate each person’s small triumphs or significant losses. In this way, the group is truly a comforting shoulder for each woman.

**Bhutanese Multi-family Therapy Group for Torture Survivors’ Families**

The group started in November, 2008, consisted of between five and eight families. The group was led by a bilingual mental health counsellor, and a Bhutanese case manager/community liaison co-facilitator who has a masters degree in Political science from Nepal. The goals of the group are:

a) To give members a safe place to gather and to talk about their concerns and their stories, including their recovery from torture;
b) To assist in the socio-cultural adjustment;
c) To increase members’ feelings of personal empowerment and mastery in various aspects of their lives;
d) To diminish symptoms of PTSD, anxiety and depression;
e) To form a social organization for Bhutanese torture survivors who continue to support each other after the group and advocate against torture and oppression, which helps with the continuation of personal and community healing, advocacy and social support.

However, the focus in the first stage switched to survival issues, because of the new added traumatic stress, arising from the dire economic situation in US at the time. The therapy focused, at this stage, in developing assertiveness training, problem solving skills, using humour, laughter and other skills, for example, journaling and making to do lists.

Clients are encouraged to share their story but they are not pushed to. Most of the members are interested in discussing religious topics. They are also interested in discussing the politics of Nepal and Bhutan. The experience one time of a member who was very quiet in all sessions, but who spoke up for the first time about politics and gave his opinion, shows the relevance of this topic to group participants.

**General Principles for torture groups:**

1) Helping clients regain control of their life. Also, providing a safe space to practice control during group time. For example, letting them have cell phones and giving them the choice to answer it (it could be from their job agency, sick relative, etc.)
2) Giving them choices and teaching them to choose for themselves. Letting them make the rules for the group and then adding more important ones if necessary.
3) Abstaining from re-traumatizing by recalling memories of torture. Encourage, not force them to share about their torture. Most of them are afraid, guilty, embarrassed, feel responsible for what happened to them.
4) Most importantly, establishing and gaining their trust. Making them feel very comfortable in any way possible. Talking about their history, where they came from, history behind their country, learning about their culture and its practices. Letting them educate the therapist and case managers about the conditions they came from. Talk about politics and religion, their favorite movies, songs they like.
5) Using laughter and humour: Laughing is the shortest route to the heart. Strategies of telling jokes and laughing in the moment helps them forget about their pain for now. Talking about the
new host culture, inviting them to share any funny events relating to the host culture that they experienced are helpful interventions.

6) Using art and other creative activities. Collage was liked by all members. Telling stories by looking at some emotion cards, writing letters of gratitude, acculturation activities, educating about the new culture and its practices, having them draw their interests, hobbies, strengths, accomplishments, successes, and positive focused therapeutic activities were all utilized.

7) Balancing power dynamics in the group was important. Getting down to their level and accessing them, reflection of power in dress, seating in the group, not practicing too much control, or making strict rules were important.

8) Letting them vent and complain because they have no place else to do that. Listen to them closely without any judgements, supporting them, but not letting them obsess about complaining and intervening when they are complaining too much.

9) Help problem-solve. Brain storm with them to solve the current problems in their life (ranging from filling forms to accessing transportation, getting jobs, learning English, etc.).

10) Help create a cohesive bond between them, so they have access to support outside the group setting. They can help each other which will help them feel good about themselves if they can help others.

11) Teach basic coping techniques with stress, adaptation to a new culture, find out how well they cope currently and find strengths in them. Learn their ways of coping and help reinforce those if they haven’t been coping well.

12) Psycho-education about their symptoms and how it relates to their overall traumatic experiences, about PTSD, how it is affecting their life and how they can minimize the symptoms, cope with them, take care of themselves.

13) Teach them the importance of self-care. Most of them are very modest, generous, put others first and leave themselves out.

14) Getting them involved with community events. Invite them to attend events related to the celebration of torture survivors, cultural celebrations, and potlucks.

15) Teach them assertiveness, conflict resolution, parenting skills. Help them practice/role model newly learned techniques in the group and get feedback.

16) Letting them tell their story without forcing them, but a little probing may be necessary. Make sure they feel safety and trust.

17) Find out about their religion and spiritual strengths and practices. For most of them that is the first resource or coping strategy to turn to their religion.

18) Involve their family and community.

The Bhutanese group provided another model for achieving the community organization goal. While community organization in the Bashaal group happened spontaneously, in the Bhutanese group it happened intentionally. The case manager, the co-facilitator of the group, who is a Bhutanese community leader and previous political science professor in Nepal, initiated the call for group organization after the sixth session, and started to help them apply for non-profit status. In this model the case manager, a Bhutanese leader himself, who has a master’s degree in political science, initiated establishing the non-profit organiza-
tion for the Bhutanese community of torture and non-torture survivors. The organization celebrated cultural events and organized art and craft expositions and participated in the Georgia coalition of refugee stakeholders.

Summary and conclusions
Torture consists of different traumas that target an individual or group. Collective identity is an important factor in this complex trauma. The multi-systemic, multi-component, wraparound psychosocial rehabilitation approach for torture treatment addresses the three systems affected by torture: The individual, family members and the group. Group therapy for torture survivors is an important component of this model. Group therapies extend to community healing. Groups develop their cohesion to graduate to a social community club. New graduates from the group join the club and become part of the social advocacy process and of group and community healing. The Bashal Somali women group and the Bhutanese multifamily groups are variants of this model. The women’s therapy group has developed to be a social club for Somali torture survivor women that convenes and arranges social activities and work on arts and crafts. They hold their events to celebrate and sell their products and to lobby against torture in the community at large. The Bhutanese group provided another variant of the model for achieving in community organization goal. While community organization in the Bashal group happened spontaneously, in the Bhutanese group it happened intentionally. The case manager, the co-facilitator of the group who is a Bhutanese community leader, initiated the call for group organization. While the CTTS group therapy model with its variants have a theoretical face and validity, future studies are needed to provide empirical evidence of its effectiveness in achieving and sustaining its goals.

References