Assessing Trauma in Sri Lanka

Psycho-Social Questionnaire

Vavuniya

Survey Outcomes

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This report is produced in close co-operation with a multinational team motivated to bear witness to the anguish suffered by the people living in the Welfare Centres (WFC) in Vavuniya, Sri Lanka.

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I. Summary

This report is based on a mental health survey among the population of the Welfare Centres (WFCs) in Vavuniya (Sri Lanka). The Welfare Centres were established 10 years ago as temporary facilities to house those that were to be resettled in other parts of Sri Lanka. Due to the ongoing insecurity the mostly Tamil inhabitants have settled permanently in the Centres. A pass system limits the movements of this group of 23, 000 people considerably.

During the survey (13-17th of Nov. 2000) 163 displaced living in the WFCs were interviewed. The number of women interviewed was higher (62%) which is not representative for the population distribution in the WFCs (females 53%). Majority of the respondents had an age between 25-34 years with a secondary education. Both are representative for the WFCs population.
The majority (58%) was displaced between 1995-1999 (Nov.). The average amount of displacements was 3 times prior to arrival in the WFC. Most escaped with their family (87%). A substantial number of displaced indicates their preference to restart their life in a quiet (no war) area (50%). A minority (12%) wanted to stay in the WFCs.
The possibility to start a meaningful life with self-control through for instance an own income is small. The pass system did not allow them to leave the camp. Subsequently only 6% has full time work. The rest (94%) is highly dependent on the WFC facilities and a small government allowance. It can be concluded that the population in the WFC is 'guarded' without a reasonable chance to rebuild their lives.

The appraisal of traumatic experiences shows that substantial numbers of the WFC inhabitants have been exposed to direct war fare (attack on village 65%, aerial bombing 77%, mortar fire 54%). People witnessed wounded persons (60%), torture (51%) and people being burnt in their houses (38%).
The personal experiences highlight more the indirect consequences of war (arrests/kidnap 18%, hostage/detention 17%, maltreatment 18%). Rape experiences are low (2%) and are also witnessed by a few (2%). However, 60% has heard of raped cases. Since rape is a taboo and very difficult to reveal in an interview survey, it is possible that rape is under reported.
Personal losses are high: at least 37% lost someone close and 30% witnessed their actual death. Other reported consequences of the conflict are loss of all properties/ houses (both 97%), suffering from starvation (94%) and missing/separation from family members (48%).
In addition to these past experiences a majority of the respondents indicate a constant feeling of un-safety (87%). It can be concluded that the population does not only carry a heavy burden of past traumatic experiences. They are chronically under pressure because they do not feel safe.
The Impact of Event Scale (I.E.S.) measures both avoidance and intrusions as modalities of a traumatic response. No significant difference was found between the two modalities. The total scores of the I.E.S. shows that only 11% of the respondents do not have problems, 82% of the respondents have scores indicating serious mental disturbances. The findings on the I.E.S. are consistent with the outcomes on the appraisal of the traumatic experiences. Both indicate high levels of traumatic stress.

traumatic stress and psychosocial problems are frequently associated with unspecific medical complaints. Majority of the people perceived their health to be worse (77%) and 45% seeked professional help (doctor, traditional healer, medicine man). The major complaints were generalized body pains (38%), chest/heart problems (27%) and headache (23%). Only 31 % did not have any complaints.

Suicide rates in Sri Lanka are reported as among the highest in the world. The number of successful (62) and attempted suicides (691) in Vavuniya is equally high. The prevalence of

suicide was three times higher among the population of the WFCs! In our survey 24% of the people reported to have someone in the family that attempted suicide.

It is concluded that there is a clear need for a psychosocial intervention in the WFCs. This program should not only address the events of the past. The majority of the respondents (87%) are presently feeling unsafe. The lack of security, the poor living conditions and the ability to move freely must be addressed through an ongoing dialogue with those responsible. The dialogue has resulted in a relocation of 400 families and the intention to resettle another 3,600 before the end of 2001.
Finding the appropriate balance between 'psycho' and 'social' is also crucial for the success of the intervention. A sole focus on the provision of clinical services is not effective since the majority of the respondents (65%) do not know what services a counsellor offers. Furthermore, trauma is clearly not only an individual experience. Mass violence also affects community systems and structures. The social component (including psycho-education, community restoration/mobilisation) is therefore equally important for the coping process.

The findings of the survey only touch on the sufferings of the country's population. The civil war in Sri Lanka started some twenty years ago and no region has been spared.
The psychosocial and mental health consequences of war on civilians are all too often neglected. Even after hostilities cease, the war may continue in people's minds for years, decades, perhaps even generations. To address only the material restoration and physical needs denies the shattered emotional worlds, ignores the ruined basic assumptions of trust and the benevolence of the human beings. It leaves un-addressed the broken morale and the spiritual consequences of war.

After severe conflicts, people seek to forget (in our survey 78%) or deny what happened to avoid painful memories of the past and to escape the sense of hopelessness, humiliation and anger. This may work for some people but for most survivors of violence, acknowledgment of the suffering is a crucial element for making sense of and addressing traumatic experiences. To help a traumatized person is a matter of restoring the bond between the individual and the surrounding system of family, friends, community and society. Overcoming the extreme stress and sometimes even severe mental health problems associated with mass traumatization such as in the case of the Sri Lankan Welfare Centres in Vavuniya, tests the healing capacity of family and community systems. Psychosocial and mental health programs are evident tools in the process of adaptation and restoration that should not be overlooked. The involvement of local people in these programs is of crucial importance.

II. Background

1. Context

1.1. Political: Tamils fight a protracted war for an independent homeland

After Sri Lanka gained independence in 1948, Prime Minister S.W.R.D Bandaranaike championed a policy of making Sinhalese the country's sole official language and Buddhism the state religion. The declaration alienated all other ethnic groups, including the Tamil Hindus (13% of the population), and precipitated the first inter-communal riots in Colombo. Sporadic episodes of violence erupted between Sinhalese and Tamil extremists throughout the 1970s. The first major Tamil rebellion in the North and East occurred in 1979, culminating in violent killings between the Tamils and Sinhalese and forcing tens of thousands of Tamils to flee to safer areas including Tamil Nadu State, India. By 1987 the Liberation Tigers of Tamil Eelam (LTTE) had emerged as the strongest militant group. In April 2000, the LTTE captured the strategic military base, Elephant Pass, the gateway to the northern Jaffna peninsula and the city of Jaffna.
The 17-year brutal civil war between the LTTE, fighting for an independent state in the north and east of the island and the Sri Lankan government, has so far killed over 60,000 people. The war effort has shattered the economy.

Surface area	: 65,610 km^2 (over 1.5 times the size of the Netherlands)
Population	: 19 million (mid - 1999)
Independent since	: 4 February 1948 (from UK)
Form of government	: Republic
Head of state	: President Chandrika Kumaratunga (since 12 November 1994)

1.2. Medical/humanitarian background: Increased medical needs, shortage of drugs and medical supplies

In the war-affected areas in the Jaffna peninsula and the Northern Wanni region, humanitarian conditions for the civilian population are precarious and the potential deterioration of the situation could result in acute emergency needs. Repeated displacement of the population has forced many people to live in unsafe conditions with little or no shelter, water or sanitation. A significant part of the population is confronted directly and indirectly with the war. The ongoing confrontation with violence has resulted in an increased prevalence of psychosocial problems, traumatic stress and psychiatric co morbidity like (Post traumatic Stress Disorders, depression etc.). The number of displaced persons is currently estimated at 800,000 (UNHCR), of which 297,200 are internally displaced in the Wanni (L'état du Monde 2000).

Sri Lanka has a good national health care system, with a structured network and free medical care and treatment. However, the chronic war situation is severely disrupting the system, particularly in the LTTE controlled areas, for which the government still assumes responsibility. Many healthcare workers have left the area or refuse to work there and a severe shortage of doctors, nurses and specialists exists. The knowledge on treatment and support for victims of violence is growing in Sri Lanka. However, due to security reasons this knowledge hardly diffuses to the regions most in need.

2. Project activities

MSF-Holland works, since 1994, in the northern part of Sri Lanka, in both government and LTTE-controlled areas.

In Mallavi, a small town in the Mullaitivu district, MSF-Holland is running an extensive hospital programme. The teams support the surgery, paediatric, gynaecology and obstetrics departments. MSF-Holland is also prepared for emergency situations.
In Puthukkudiyiruppu, in the Eastern Wanni region, MSF-Holland is assisting with public health care, with an emphasis on women and children, reducing the high mortality and morbidity rates occurring during pregnancy and early childhood.
In Vavuniya, the Sri Lankan Army's forward defence line and access point to the Wanni region, MSF-Holland is establishing a community based psychosocial project to provide counselling services for civilians, with an emphasis on the psychosocial consequences of violence (August 2000). The activities will also include increase awareness, community strengthening and reinforcing coping strategies for long-term war-affected communities.

III. Vavuniya: the temporary Welfare Centres

1. Brief update

In the early 1990's relocation camps, called Welfare Centres (WFC) were established to house Tamil refugees returning from India. After registration and screening the returnees were planned to leave the WFC as soon as possible to settle permanently in the resettlement areas. However, the conflict intensified and resettlement was halted. Soon the returnees found themselves in the temporary facilities together with an increasing stream of Internally Displaced Persons (IDPs) from the war-affected areas in the North and East of Sri Lanka. Those IDPs with family, sufficient money or an established network were allowed to settle in Vavuniya town. Approximately 20,000 IDPs (Government office, April 2000) live in Vavuniya town but the majority of the IDP population lives in the centres. Some of them for more then 4 years, a substantial number already for 10 years. The temporary WFC have become permanent accommodation to 23,000 people (according to the Government Agent). They all have ethnic Tamil background and they are distributed over 15 WFCs and 6 temporary camps.

The Sri Lanka government, through an internal pass system, has placed severe restrictions on the movement of Tamil IDPs, including their freedom to live, work and travel as they please. The severity of restrictions depends on the status of the WFC. In addition the pass system causes serious security risks for the IDPs. During recent fighting (Nov. 1999), when the majority of Vavuniya's residents fled the city in anticipation of fighting Tamil IDPs from WFCs had difficulty to leave because they lacked the necessary documents.

2. An initial assessment: stressors and consequences

Initial assessments carried out by MSF-Holland (July 2000) revealed a dramatic situation. Focus group discussions and key informant interviews showed two important categories of stress.
The first category was composed of the exposure to ongoing traumatic events. The burden of past traumatic experiences (displacement and confrontation with violence during their flight) was indicated as a burden. However, the traumatic experiences were by far past tense. The occasional violence in the WFCs and harassment by authorities (e.g. arrests) was indicated as an ongoing source of traumatisation. The inhabitants experienced their confinement to the WFCs as incarceration and being hostage. Both the pass system and the inability to flee during times of intensified violence (e.g. the November 1999 crisis) were mentioned as realistic examples.
Secondly the living conditions in the WFCs contributed to chronic (non-traumatic) related stress. Most families (average 6 members) already live for a substantial time in an area of 10 square feet. Hygiene is very limited: shortage of water and full pit latrines are common. Due to the limitations in movement, the long stay (average 4 years) and the absence of activities, the population became passive. Male adults have lost their working skills, ceased to uphold their

cultural role of family provider and protector and have become poor role models for their children. The adult women face burnout by their daily stress of watching the children, cooking in hot and smoky rooms (resulting in high rates of eye diseases). The needs of children in general and particularly their educational needs are a major source of concern for people. These problems are compounded by the ongoing conflict, which gives very little hope that the situation will change in the future.

The stressors resulted in psychosocial problems among the population of the WFCs. Both the health authorities and the inhabitants raised their serious concern about the high rate of suicide in the WFCs. Those interviewed stated that in addition to the traditional reasons (e.g. relationship troubles) especially the difficult living circumstances, great socio-economic stress, the hopelessness, domestic (family) problems and the general despair were important additional reasons for suicide (attempts).
According to the health authorities the distress of the people was mainly expressed through somatisation (younger people: more back pains, older people: more headaches), sleeping problems, anxiety and bad moods. These were treated mainly with drugs (among them high rates of Diazepam prescription).
Lastly the despair and loss of future perspective resulted in increasing numbers of alcohol dependency, domestic problems and community disharmony. The social rubric of the IDP community was reported to be under severe pressure.

3. Coping: A misbalance between protective and risk factors

The normal psychological coping mechanisms of humans beings subjected to traumatic experiences should not be overlooked. It has been found that in the West significant proportions of people (60-90 percent) are able to integrate their traumatic experience by themselves (Kleber & Brom, 1992). This coping process (the ability to integrate the experience) should be regarded as a normal reaction to an abnormal circumstance. The final outcome of the coping process is influenced by protective factors (e.g. normal living conditions, social and cultural support mechanisms) and risk factors (e.g. length of traumatic experiences, being wounded).
The risk factors in the WFCs were omnipresent: some stayed in the camps for 10 years, ongoing exposure to violence, unclear status etc..
The absence of protective factors (e.g. normal living conditions) in the WFCs further added to the pressure on the normal coping process. The special situation in the WFCs has resulted in an erosion of the support systems. Furthermore the usual rich community and traditional support systems in Vavuniya district were affected seriously by the chronic violence. The help for personal problems traditionally offered through significant others (e.g. school principles, community leaders, respected elders, priests (Hindu, Catholic)) have been reduced severely (people moved to saver areas) or inaccessible (pass system). Also the number of traditional healers (using herbal or Ayuverdic medicine) who sometimes provided solutions for psychosocial problems, decreased due to the circumstances.
Lastly the external support offered through NGO activities was insufficient. The substantial psychological knowledge and resources are available in Colombo hardly reached out to the Vavuniya area.
The risk analysis of the coping mechanisms indicates a serious pressure on the normal coping process. It was therefore logical to expect: increased psychosocial problems (alcoholism, domestic violence etc.), high prevalence of traumatic stress or even psychiatric disorders like post traumatic stress disorder, anxiety disorders, depression.

For those in need of psychological or even psychiatric support the health system did not offer support. The health authorities admit that there has been a psychological problem in Vavuniya 'for two decades'. They are helpless to do anything about it due to lack of resources and know-how.

IV. Survey: Quantification of psychosocial and traumatic stress

The initial outcomes of the assessement were discussed with the (health) authorities. The authorities asked MSF to support the people in the WFCs. The request resulted in the implementation of a psychosocial program in Vavuniya. As part of its program, a population survey was conducted in the WFCs. The main objectives were: to quantify the indicators of psychosocial and traumatic stress (e.g. what people experienced, to what extent the events resulted in traumatic stress, and what other medical needs emerged) and to acquire additional general information on stress (e.g. coping styles, self help, who to visit etc.). The survey questionnaire was composed and partly designed by MSF because no other cultural validated psychosocial and traumatic stress surveys instruments for emergency settings were available. The concepts and the questionnaire are described below.

1. Theoretical framework of PTSD

Post-Traumatic Stress Disorder (PTSD) is frequently used in connection with traumatic events. The concept is well fitted to describe the serious and prolonged disturbances of individuals confronted with major life events. The distinctive criteria of PTSD (Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (DSM-IV); APA, 1994) are (1) an extreme stressor, (2) intrusive and re-experiencing symptoms, (3) avoidance and numbing symptoms, (4) symptoms of hyper arousal, and (5) symptoms of criteria 2, 3, and 4 should be present at least one month. The concept is also included in the International Classification of Diseases (ICD-10) of the World Health Organization (1992). PTSD is strongly associated with dissociation and somatisation (McFarlane, Atkison, Rafalowicz & Papay, 1994; Van der Kolk et al., 1996).

The concept of PTSD should be considered with care for several reasons. First, not all disorders after traumatic events can be described in terms of PTSD. It is not the one and only possible disorder after traumatic events, even according to the DSM system. Co-morbidity has been found to be more prominent in trauma patients than was originally assumed (Kleber, 1997). Second, whether Western conceptual frameworks on psychological stress and mental disorders can be transferred to different areas of the world are practical as well as theoretical and ethical questions (Kleber, Figley & Gersons, 1995; Summerfield, 1996).

Research has shown that nearly all war victims experience recurrent and intrusive recollections, dreams, and sudden feelings of reliving the event (e.g. Bramsen, 1996). These responses are combined with increased arousal, avoidance of stimuli associated with the trauma, and numbing. Through the oscillation between intrusions and avoidance, the psychological integration of the traumatic experience is realised, which has been made clear in cognitive processing models (e.g. Creamer, 1995). Physical symptoms such as headaches, stomach pains, back pains are often part of this process. These physical symptoms frequently cause persons to seek medical attention. Daily experience in the field demonstrates that traumatized people impede the restoration of ordinary life and jeopardize conflict resolution.

Besides the mental and physical suffering that people experience, on a spiritual level their fundamental assumptions of control and certainty, as well as basic beliefs in the future and in the benevolence of other people, are also shattered often beyond repair (Janoff-Bulman, 1992; Kleber & Brom, 1992). Research indicates that the duration and the frequency of traumatic experiences negatively influences physical, mental and spiritual coping mechanisms (e.g. Kleber & Brom, 1992).

2. Theoretical framework of the Vavuniya Psychosocial Questionnaire

The survey and questionnaire focused on assessing the first category of ongoing traumatic stress (as earlier described in chapter III.3). The (non-traumatic) chronic stress that is caused by the living conditions is not assessed separately for it was already assessed in the focused group discussions and key informant interviews.

The ongoing psychosocial and traumatic stress caused by the situation in Vavuniya is partly chronic (e.g. past experiences, confinement to the WFCs) and partly acute (as result of the ongoing security incidents). One can expect a combination of acute traumatic stress, various psychosocial problems, posttraumatic stress disorder (PTSD) and psychiatric co-morbidity (e.g. depression, anxiety disorders).
To our knowledge no trans-cultural validated tools are developed in Sri Lanka to measure the mental health and psychosocial consequences of the chronic conflict. For this reason a questionnaire was developed to assess the prevalence of traumatic and psychosocial stress. Three important indicators were used:

1. Risk factors;
2. Impact of the events; and
3. Appraisal of physical complaints.

The first indicator refers to the risk factors (exposure to traumatic events, personal traumatic experiences, witness, loss) that influence the coping process after a traumatic experience negatively.
The exposure to events refers to a situation that jeopardized the respondents' well-being, life or property. The exposure to traumatic events however, does not clarify the proximity to which the respondent has been involved. In general the coping process is more difficult when people themselves experience immediate life-threatening circumstances (Kleber, Brom; 1992). For this reason the exposure was separated from the personal experiences.
To create terror a perpetrator often demands others to witness the atrocities. The psychological impact of actually witnessing horrific events imposes a serious psychological stress.
Conflict and violence are closely related to loss. Loss of loved ones and witnessing their violent death might be one of the most serious risk factors for developing traumatic stress, psychosocial problems or psychiatric disorders like PTSD, depression, anxiety disorder (Kleber, Brom; 1992).

A second indicator of the trauma level is the psychological impact of the experiences. The Impact of Event Scale (Horowitz, Wilner & Alvarez, 1979) was used to assess this. The I.E.S. is a psychometric instrument that measures two central dimensions of coping with drastic life events: intrusion and avoidance. It has been used worldwide and generally consistent structures have been found across samples and situations (Dyregrov, Kuterovac & Barath, 1996; Joseph, Williams, Yule & Walker, 1992; Robbins & Hunt, 1996; Schwarzwald, Solomon, Weisenberg & Mikulincer, 1987; Silver & Iacono, 1984; Zilberg, Weiss & Horowitz, 1982). The Impact of Event Scale is proven to be adequate in situations of prolonged and chronic stress and long term trauma (Kleber, Brom; 1992).
Despite its wide use and consistently affirmed psychometric qualities (Joseph, 2000), interpretations of the outcomes should be done with appropriate care for the I.E.S. is not validated for Sri Lanka. We therefore applied cut-off scores used in Western Europe (no problem: 0-10, at risk: 11-25, Serious Mental Disturbances: 26-75). In the future we are optimistic on the possibilities to compare our results with other surveys that used the I.E.S.. The local NGO International War-Related Trauma & Humanitarian Intervention (IWTHI) executed a survey in the Vavuniya region and used the I.E.S..

Another reason for caution in the interpretation of the I.E.S. outcomes is a very common misinterpretation (e.g. Summerfield, 2001). The I.E.S. does not directly measure PTSD it does measure two central dimensions of coping with a drastic life events. Though the I.E.S. often has high scores when the person is suffering from PTSD, the I.E.S. itself does not measure PTSD.

The third indicator appraises physical complaints that are likely correlated to traumatic stress. Physical symptoms like headaches, people suffering from traumatic stress often express stomach problems, general body pain, dizziness or palpitations. Both traumatic stress and PTSD are strongly associated with somatisation (e.g. Van der Kolk et al., 1996). A high prevalence of unspecified health complaints may indicate a possible high level of traumatic stress or PTSD.
Physical complaints are registered by means of open-ended questions. The visits to health care system, the perceived health were registered using the Lickert scale.

When all three indicators of traumatic stress were positive at least strong circumstantial evidence for the prevalence of traumatic stress was found.

The final part of the questionnaire consisted of general open-ended questions. It was mostly arranged around knowledge on and practices to deal with psychosocial and traumatic stress.

V. Methodology of the survey

1. Training and translation

Four survey teams were selected. Each team consisted of four people: two of MSF-Holland office staff (expat and national) and two volunteers from the Holy Cross Sisters.

The training of the survey staff included the following elements: introduction to MSF, the nature and purpose of survey, confidentiality of the data and information, survey technique, data registration and task division among crews. The staff practised interviewing skills on each other. The staff was prepared for the strong emotions some survey questions might provoke. They received special training on how to deal with them. They were also informed on referral possibilities for those in need of follow-up psychosocial support. Both during the training and the actual survey the staff was debriefed daily.

The initial questionnaire was discussed with the MSF translator. She translated the English version into Tamil. The 15 questions of the I.E.S. had already been translated by the Colombo University and used in Sri Lanka by the NGO International War-Related Trauma & Humanitarian Intervention (IWTHI). This translation was used for the survey. The remaining parts of the translated questionnaire were discussed with the MSF drivers, and the assistant project manager who all spoke fluently English and Tamil. After corrections from their side a second version of the questionnaire was drafted.
The second draft was discussed with 20 volunteers from the Holy Cross Sisters who lived in the WFCs themselves. The group of 20 volunteers were asked to complete the second draft questionnaire with someone they knew. This pilot test resulted in 30 completed questionnaires. The 20 volunteers again discussed the questionnaire and gave feedback on the interpretation of certain questions. The remarks resulted in the final Tamil version of the Psychosocial questionnaire as was used in the survey.
As result of the translation, the discussion and pilot some changes were made. It was concluded that the I.E.S. statements were asked as questions rather than statements because many participants were confused by it. Slight adjustments were made to increase common understanding.

2. Target Population & Sample

The survey was conducted after the permission of the appropriate authorities, from the 13th until the 17th of November 2000. Because it was expected that everyone in the WFCs had been subjected to traumatic experiences no selection was made between recent and long time residents of the WFCs. The target population was divided over 21 WFCs. The population number 22,829 was based on the Government Agent data (see Table 1). During the survey period (and preparation) only minor population changes were registered in the Sanasa Centre (reduction of 165 households).

Table 1: Overview of Welfare Centres, number of families and persons

WFC	**Families**	**Persons**
Semi-Closed		
Poonthoddam (Unit 1-9)	2,382	9,935
Veppankulam (Unit 1-2)	305	1,355
Nellukulam	245	1,019
Transit		
Sansana	278	647
Semi-Open		
Sithamparapuram (Section A-D)	1,925	7,448
Adappankulan	395	1,486
Temporary		
Iyangarau*	N.A.	N.A.
Pavatkulam*	N.A.	N.A.
Kidachuri	235	939
Total	**5,765**	**22,829**

(Source: Government Agent July 2000). * = no data were available on the time of assessment.

A random sampling method was possible because every family was registered by the Welfare Centre officers. The methodology used is based on health surveys extensively described in the various handbooks (WHO 1994; Bennet 1991). The sample size was set at 180 (n=180), which is adequate for a random sampling in a population of about 23,000.

The number of participants in each WFCs was matched according to the number of households. The WFCs on which data were missing (Iyangarau, Pavatkulam) were excluded from the survey. Households were randomly selected from the registration lists, which were available in each centre.

Once the households were selected the members over 18 years were asked to present themselves at the interview point. Those with the birth date closest to the date of the survey (13-17 November) were asked to participate in the survey. When the identified person was not present the interviewer would return for maximum three times. No alternative was chosen for the selected person.

3. The Interview

The structured interview was based on the psychosocial questionnaire described above. To limit the emotional burden the questions were put as factually and simply as possible. When unclear, a short explanation of the interviewer was allowed. Participants were not allowed to fill in the questionnaire later nor were they permitted to study the questionnaire in advance. Interviewers had to respect confidentiality at all times.

The survey teams consisted of four persons. The Holy Cross volunteers did not survey the camps in which they worked. One expat staff conducted the interview with translation of the national office staff and a support team of two Holy Cross volunteers. According to local custom the interviewer had the same sex as the respondent (each team consisted of at least one male). When a male was interviewed a male national office staff member conducted the interview. The teams conducted four interviews each day. Four interviews per day per team was the maximum due to the difficult nature of the information gathered.

The interviewers started with an introduction of the survey team, the NGO MSF and the purpose of the survey to the participant. In the introduction four issues were clearly addressed:

1. participants would not receive any compensation;
2. data were treated confidential;
3. interview would last for a maximum of 40 minutes; and
4. participation was voluntary and the participant could decide at any moment not to co-operate.

The timing of the interviews was crucial for people had to be at home and not busy.

It was important the participants completed the survey. To avoid exceeding the interview time it was explained that direct and short answers were necessary. Extra discussions or conversations were avoided. However, the interviewers were permitted to stop or interrupt the interview when they deemed the questions for the participant to be too emotionally upsetting. When the counsellor believed that the participant needed follow-up support, referral to professional counsellors was facilitated.
All survey teams had a daily technical and emotional debriefing.

4. Data registration

The forms were registered anonymously. Data were entered in a spreadsheet in EXEL, data were analysed by EXEL and EPIINFO-6.

VI. Results

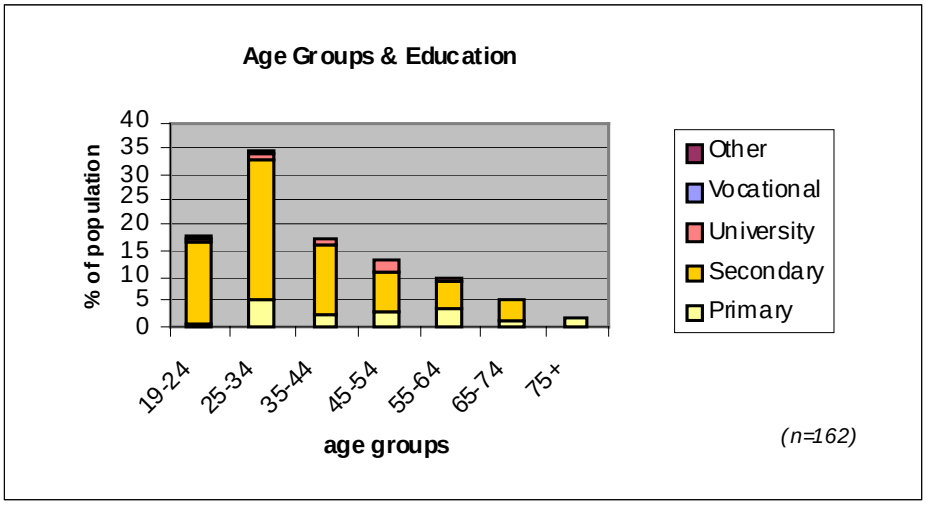
The four teams completed 163 interviews (N=163). Seventeen interviews (of the originally planned 180) were not conducted for various reasons: the population of the Sanasa transit centre was reduced with 50%. As a consequence 6 interviews (originally planned 20) were cancelled. In other centres the number of interviews were reduced because the respondents had left the centre (9) or the respondents were unavailable after three visits (2). No replacements had been appointed. None of those asked refused to be interviewed.

1. Demographics (First section)

The gender of the respondents in the survey was predominantly female (62%). This is not representative for the gender distribution in the WFCs: 53% females above 20 years (MoH Health survey August 2000).

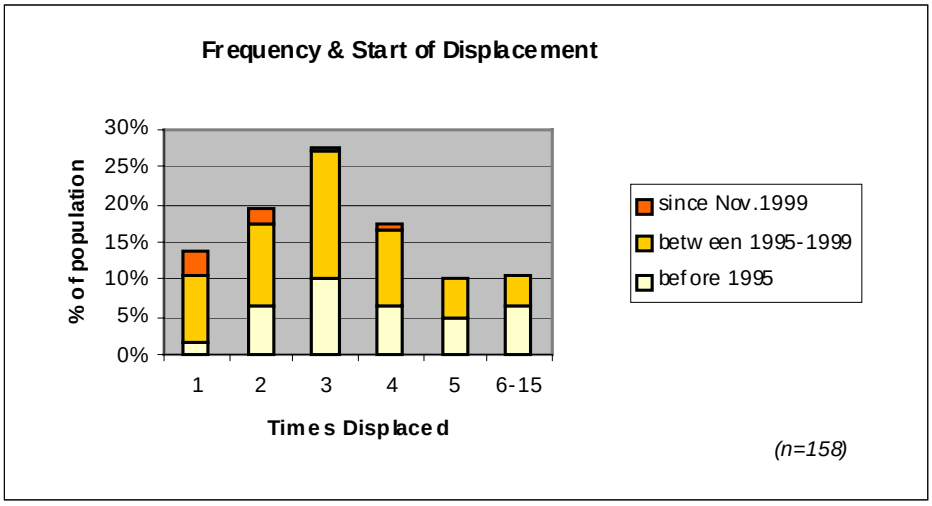
The age of the respondents varies from 19 up to 98 years with a majority of the respondents in the age group of 25-34 years (37%). The higher prevalence of the 25-34 age group is representative for the population in the WFCs. All the respondents had education most of them reached the secondary level.

Graph 1: Age Groups & Education



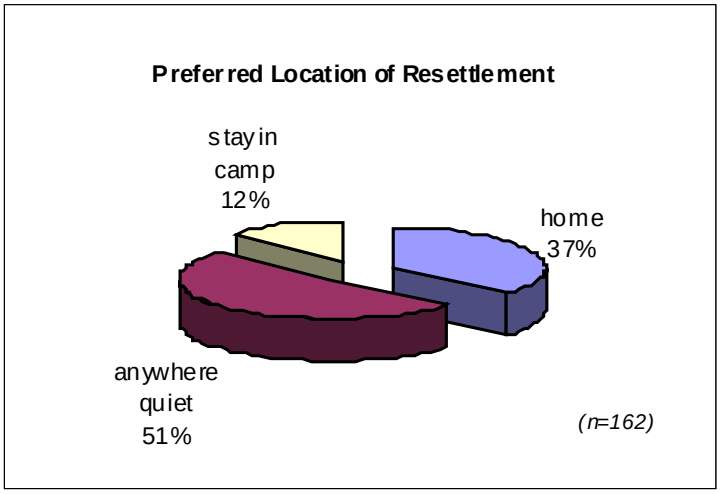
In total 7% of the respondents were displaced after November 1999 while 36% of the respondents were displaced before 1995. For the majority of the respondents (58%) their ordeal of displacement started between 1995 and November 1999. Average number of displacements per family was 3 times and 87% of the respondents escaped with their family.

Graph 2: Frequency and start of displacement



Majority of the respondents (51%) expressed the wish to be resettled in a quiet area. Surprisingly the group that wished to return home was smaller (37%). The involuntary presence in the WFCs is clear: 12% wished to stay in the Welfare Centre.

Graph 3: Overview of the preferred location of resettlement



Adaptation and coping with stress is facilitated by the possibility of the person to have distraction or (re) build a meaningful life (Kleber, Brom; 1992). The possibility to work is clearly one of them: 6 % was full time employed, 16% had part time work. The rest of the respondents (78%) had no work. The employment includes the activities of both males and females. Culturally it is acceptable for women to work.

2. Appraisal of traumatic experiences (Second section)

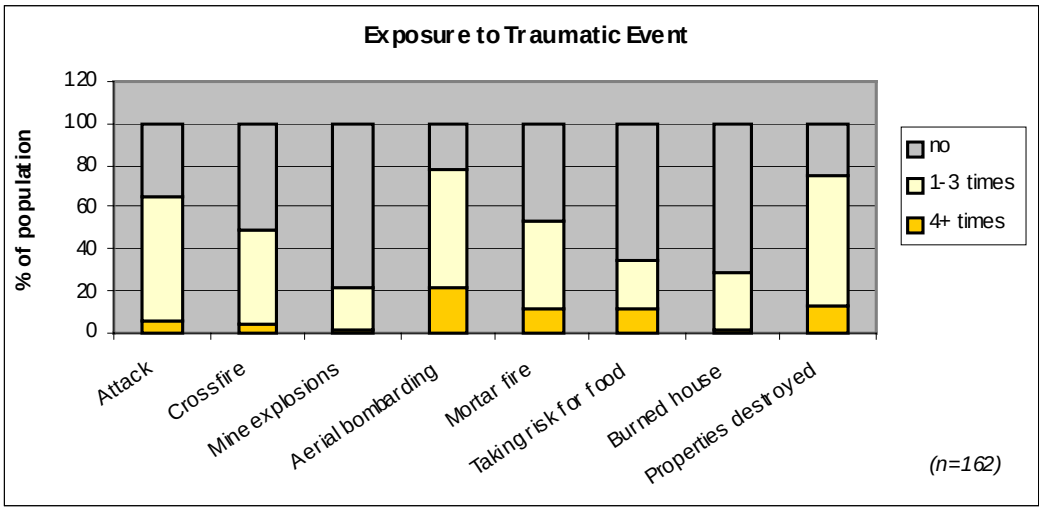
The respondents were allowed to report on all items. The percentages are related to the number of people having experienced that event as a proportion of the total number of respondents.

2.1 Exposure to, experience and witnessing of traumatic events

Graph 4 shows the exposure of the respondents to traumatic events. Incidents like: attack on village (65%), exposed to cross fire (50%), explosion of mines (21%), aerial bombing (77%), mortar fire (54%), burning of houses (30%) and destruction of properties (75%) indicate that a large proportion of the respondents have been caught in direct war activities. In addition to

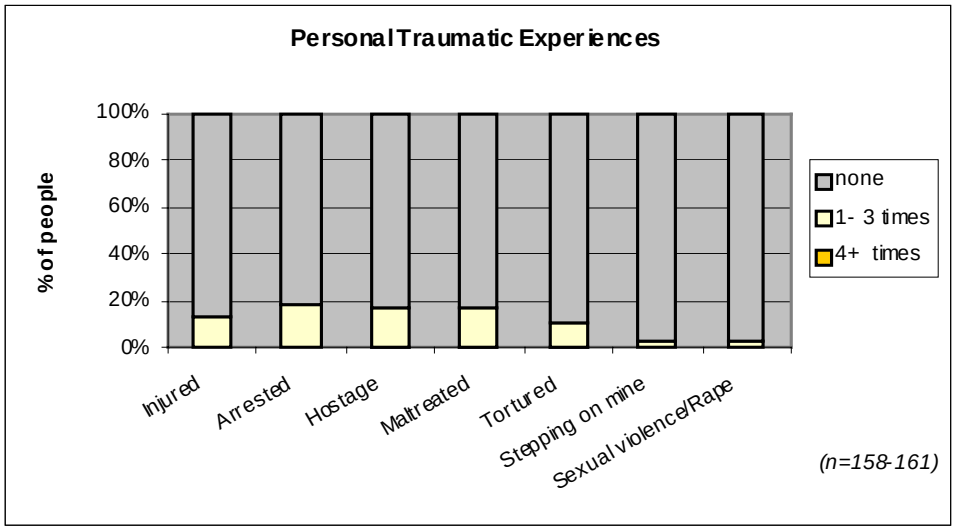
the direct threats caused by these hostilities the lack of food and other commodities forced people to take extra risks (34%). Generally a minority of the respondents indicated an exposure of more than three times to the event.

Graph 4: Overview of the exposure to traumatic experiences



Coping with traumatic events is more difficult when people themselves experience immediate life-threatening circumstances (Kleber, Brom; 1992). Graph 5 shows what life-threatening traumatic experiences the respondents have encountered themselves.
Some feared at least once for their physical integrity either through injury (13%), arrest/kidnap (18%), hostage/detention (17%), maltreatment (17%) and torture (11%). Few stepped on mines (4%) or experienced rape (2%). The relatively low report on rape (2%) should not be misinterpreted. Rape is, as in most other countries, a taboo topic. Rape victims do usually not report this crime to avoid serious repercussion from their family or to evade the stigma communities and society impose on these victims.

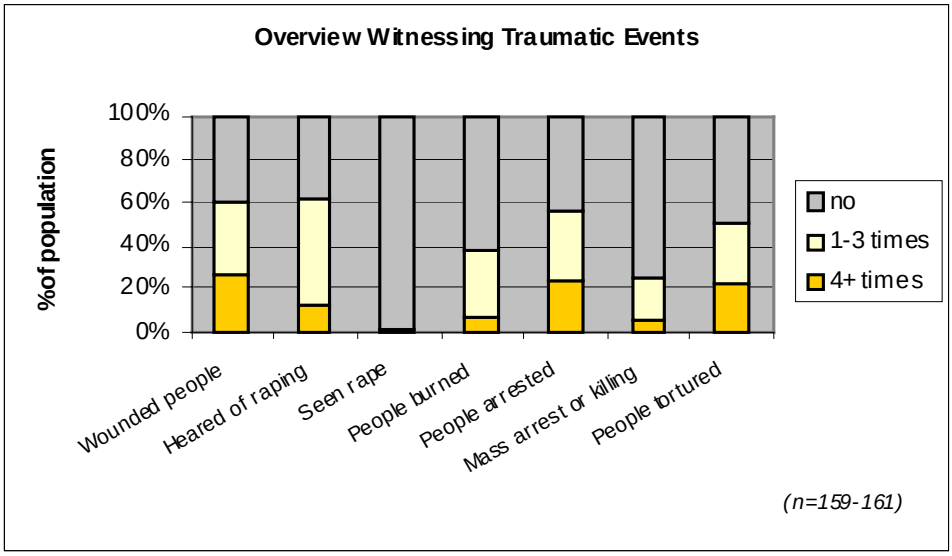
Graph 5: Overview of the respondents their personal traumatic experiences



To create terror and to impose a serious psychological stress the perpetrator often demands others to witness the atrocities. Deliberately or not, witnessing at least once wounded people

(60%) or events such people being burnt in their houses (38%), mass arrest or killings (25%) and torture (51%) may impede the normal coping process after a traumatic event. Graph 6 gives an overview.
The difficulty of reporting sexual violence (rape in this case) is illustrated by the discrepancy between hearing of rape (60%) and actually witnessing it (2%). One would expect far higher numbers of rape based on the stories. However, the underreporting of sexual violence is only one explanation. It may also be that indeed rape is relatively low but the rapes that happen imposes a strong threat to the population.

Graph 6: Overview of the type of traumatic events the respondents witnessed

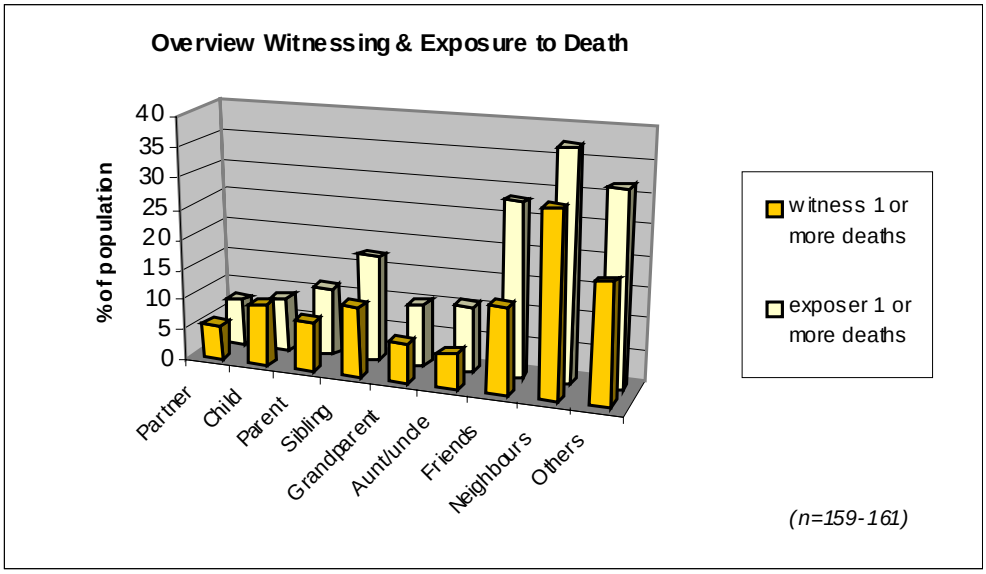


2.2 Loss and witnessing death of loved ones

Conflict and violence are closely related to loss of loved ones. The percentage of people lost increases with the number available (see graph 7). The loss in the nucleus family (partner (7%), child(ren) (9%), parents (12%), siblings (17%), grand parents (10%) and aunts/uncles (11%)) is reported less then the loss of more distant sources of social support.
The death of friends (27%) and neighbours (37%), is clearly higher for there are more of them. These data indicate that at least 37% of the respondents lost someone they knew very closely.
Many respondents who lost someone also witnessed their death: 6% witnessed the death of their partner, 14% witnessed the death of a friend; 30% of a neighbour. Additionally 10% witnessed the death of their child[1].

[1] There is a small inconsistency because the number of people who witnessed the death of one of their children outnumber the people who have lost a child. This might be caused by the definition of 'child'. Due to the violence families are sometimes forced to care for children of others (e.g. family). The child cared for might be considered as 'their' child in the witnessing question. In the question regarding 'loss' it was stressed to give the number of own children lost.

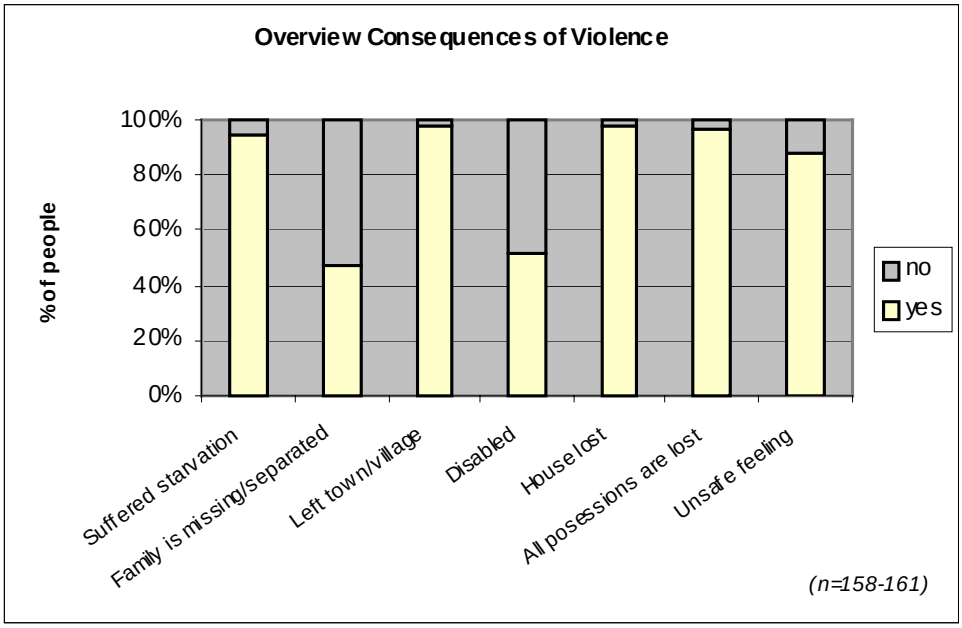
Graph 7: Overview of loss and witnessed violent death of beloved ones



2.3 Consequences of violence

As consequences of the violence 94% of the respondents indicate to have suffered starvation at least once. Other reported consequences of the violence are: missing or separation from relatives (48%), various degrees of disability (52%), lost houses (97%) or all possessions (97%). To start the process of integrating traumatic experiences a basic feeling of safety (at least the perception) is necessary: 87% reported to feel constantly unsafe.

Graph 8: Overview of consequences of violence suffered by the people



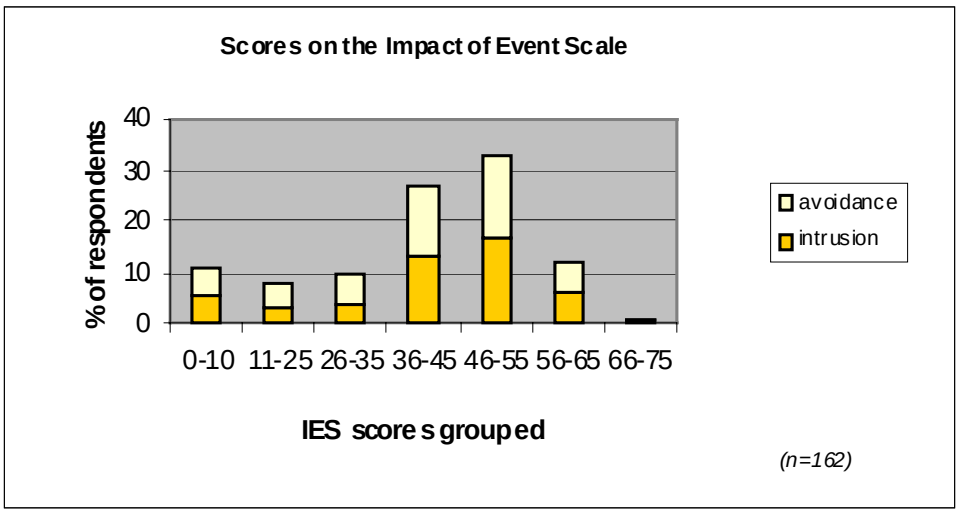
3. Impact of Event Scale (Third section)

The people in the WFCs experienced horrific events. The third section measures the prevalence of traumatic stress responses (not PTSD) through the Impact of Event Scale (I.E.S.) questionnaire (Horowitz, Wilner & Alvarez, 1979). It is constructed around two clusters of reactions: intrusions and avoidance.

The scores on the questionnaire assessing traumatic stress responses (I.E.S.) are high. When the cut of scores (no problem: 0-10, at risk: 11-25, serious mental disturbances: 26-75) for Western Europe are applied, 11 % of the respondents are in the category "no problem". Seven percent have scores indicating a risk for developing serious mental disturbances. All other respondents (82 %) have scores on the I.E.S. that indicate serious mental disturbances in a West European setting. In the current survey most people (32%) have scores between 46 and 55, which is close to the number of people having scores between 36 and 45; together 70% of the respondents. No significant difference was found between the contribution of intrusions and avoidance on the overall traumatic stress score.

The average score on the overall trauma scores scale was 39.6 with a confidence interval of 36,9 – 42.3 (95% confidence level). This result shows a good precision.

Graph 9: Frequency of scores on the Impact of Event Scale: total score is composed of avoidance and intrusion score



The results on the Impact of Event Scale measuring traumatic stress reactions are consistent with our findings on the appraisal of traumatic experiences. The reported high numbers of traumatic experiences may explain the high scores on the I.E.S. However, this conclusion has to be read with care. The I.E.S. is not validated in Sri Lanka and may therefore be subject to differences in understanding some questions. Moreover the cut-off scores may prove to be quite different then the ones (Western Europe) used by us. Despite these considerations, high levels of traumatic stress are evident for even when the cut of score is raised to 55 (more then doubled), 13% of the people still suffer from serious mental disturbances. High scores on the I.E.S. are only indicative for PTSD.

4. Physical health (Fourth Section)

4. 1. Physical complaints

People suffering from traumatic stress and PTSD often have physical complaints, like headache, stomach problems, body pain, dizziness or palpitations. Frequently the complaints cannot be related to a physical disease or disorder. Some indicators of physical health and medical needs are described below.

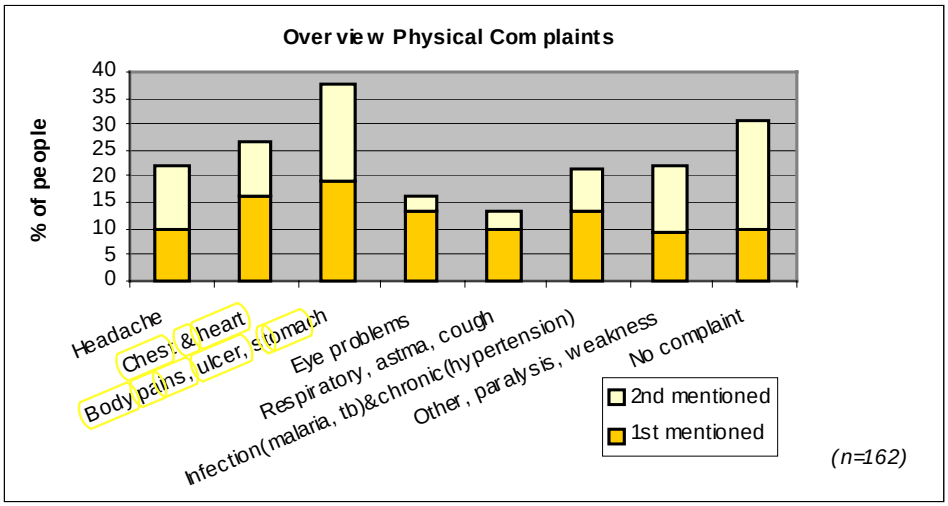
Since the onset of the violence, the majority of the respondents (77%) perceive their health to be worse then before. Nearly half (45%) of the respondents seeked professional help for their complaints with doctors, traditional healers or medicine men the last month. The health post/clinic was visited the last 4 weeks by 33% of the respondents.

Table 2: Overview of perceived health and the number of health post/clinic visits

	Not at all	**Rarely**	**Sometimes**	**Often**	*n*
Un-healthier	*15%*	*8%*	*24%*	*53%*	*162*
Seeking professional help	*47%*	*8%*	*33%*	*12%*	*162*
Health post visit	*56%*	*11%*	*19%*	*14%*	*162*

31% of the respondents did not have any physical complaints (see graph 10) over the past four weeks. Those with complaints indicated generalized body pains (e.g. muscle, joint back, stomach pain (including ulcer), chest/heart problems and headaches as their major complaint (resp. 38%, 27% and 23%) as first or second complaint. The consequences of the living circumstances also triggers many complaints like: eye problems (16%), and infectious diseases (22 %). Only 31 % did not have any complaint.
The respondents did not get a physical examination so conclusions on somatisation are premature. Bearing this in mind, complaints frequently associated with traumatic stress have a high prevalence: the top three (excluding other complaints).
The questions on the usage and effects of drugs have not been included in the analysis. It appeared during the analysis that the questions differentiating between drugs and traditional medicine were differently interpreted.

Graph 10: Frequency of first and second most important physical complaints of the respondents



4. 2. Suicide

An ultimate sign of hopelessness is committing suicide. The relation between suicide, traumatic and psychosocial stress is not very clear. However, the relation between negative social processes in general and suicide is obvious in other parts of the world (Makinen, 2000).
In our survey 24% of the population (n=162) reported to have someone in the family that attempted suicide. Suicide rates are difficult to obtain for in many cultures it is a taboo. The prevalence of suicide in Sri Lanka is one of the highest in the world (Bolz, 1999**)**. As part of the culture suicide is associated with despair often as result of a broken love affair or a not permitted marriage. Most common ways of committing suicide are taking allory seeds, agricultural poison or burning.

The high suicide rates in Vavuniya triggered the request for psychosocial assistance. The MoH of Vavuniya registered until November 2000, 62 successful suicides and 691 attempts. These data were obtained from the Vavuniya hospital only. The numbers are quite likely higher for those who do not make the hospital (dying at home) or receive treatment in the primary health care system are not included. Males had higher rates for both attempts (54%) and successful (74%) suicides (MoH Vavuniya).

It concerns us that eleven percent of the attempts was done by youngsters below 10 years. Since almost all attempts are done with easily accessible poison it is likely that the attempts in the age group below 10 years is the result of accidents and not deliberately planned. If this assumption is true it also means that these types of accidental 'suicides' are easy to prevent. Limited accessibility and stricter control will reduce the number of 'suicides' in this age group.

The data of the authorities confirmed our assessment observations: the prevalence of suicide was especially high among the population of the WFCs. The suicide attempt rate per 10,000 was in the WFCs almost three times higher: 103.5 against 37.5 outside the Centres. (in 2000)

Table 3: Distribution of suicide attempt rates in and outside the Welfare Centres (Source: MoH Vavuniya, November 2000)

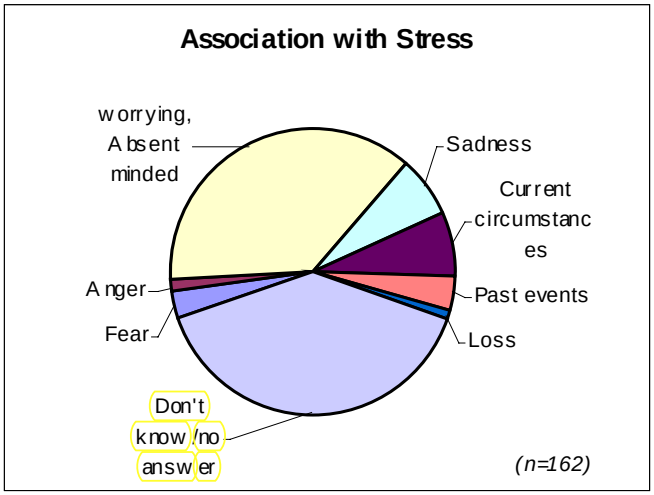
Welfare Centre	**Number**	**Percentage**	**Population Size**	**Suicide rate per 10,000**

Inside	238	34.4	23,000	103.5
Outside	453	65.6	120,000	37.5
Total	691	100.0	143,000	48.3

5. General questions (Fifth section)

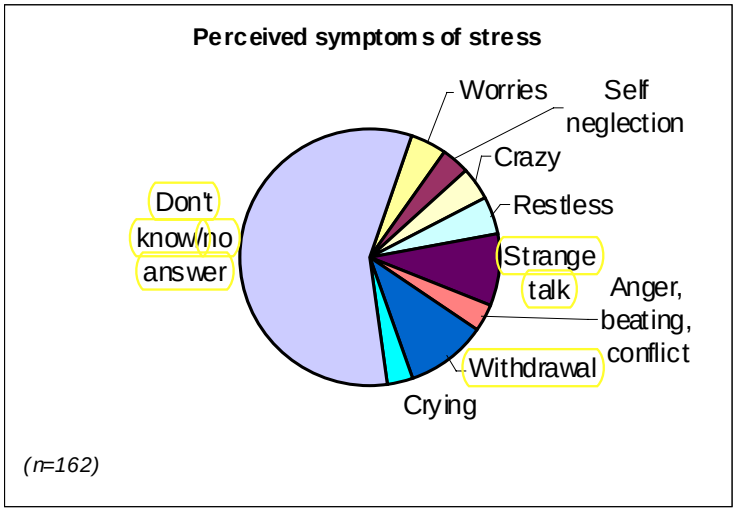
The last section of the questionnaire focused on some general opinions with regard to meaning and interpretation of stress, coping resources and protective factors.
The majority of the respondents (52%) knew someone who was stressed. Stress was associated by the majority of the respondents (38%) with pre-occupied thinking (including worrying, absent mindedness). Other high scoring associations are sadness (7%) and the current circumstances (7%); see graph 11. However, the concept of stress is unknown to a substantial number of respondents (39%).

Graph 11: Overview of the respondents answers on what is stress.



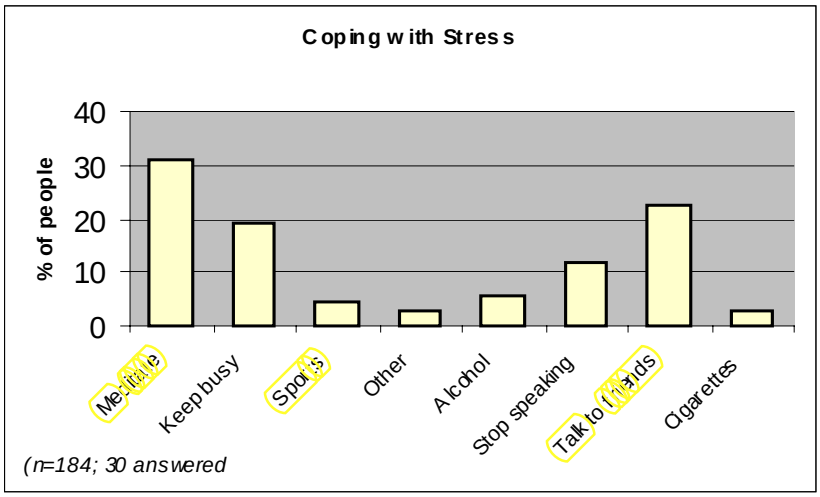
The respondents have difficulty observing stress in other people (51%). Those who answer on this question identify stress in other people because they are withdrawn (18%), they talk strangely (17%), they are restless (8%) or they act like mad man (8%).

Graph 12: Overview how the respondents observe stress in other people.



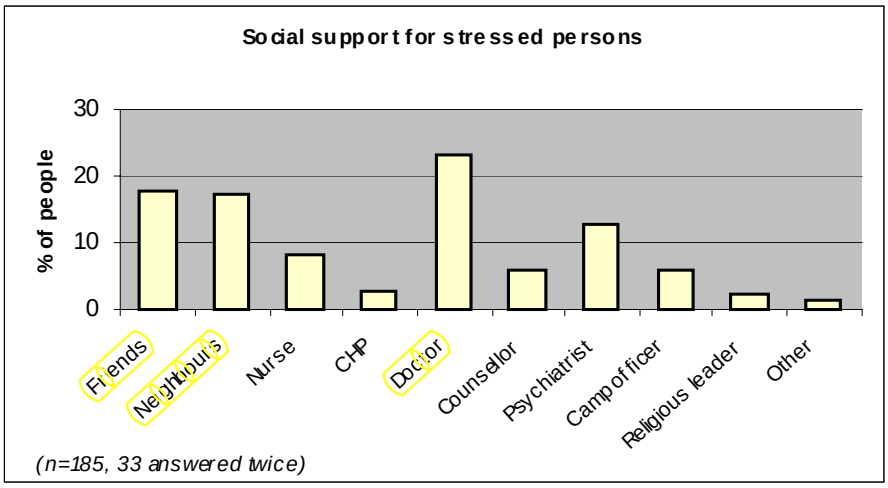
Those interviewed were asked how people helped themselves. It was possible to give more then one answer (n=189, 30 with a second answer). The majority of the people indicate that meditation (31%) or distracting themselves through talking to friends (22%) is a usual coping mechanism.

Graph 13: Overview of the self-help mechanisms for stressed people as mentioned by the respondents.



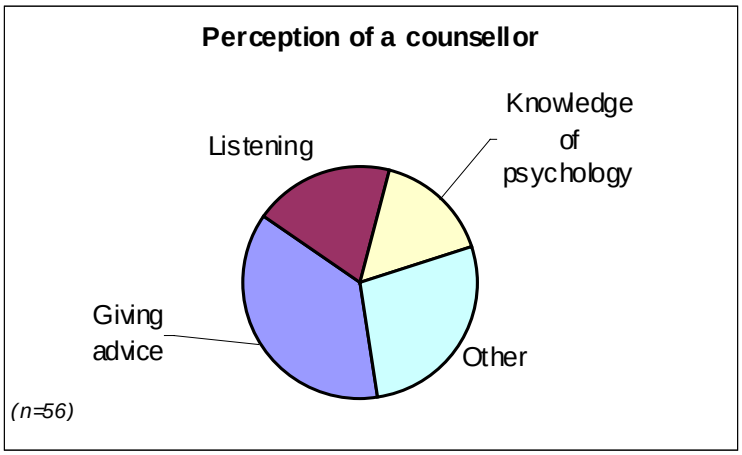
In addition to self-help mechanisms people often mobilize their own resources to help them cope with stress. Again it was possible to give more answers (n=185, 33 with a second answer). The health system (either nurse, doctor, psychiatrist, community health promoter, counsellor) is the most common place to seek for support (53%). Also friends (18%) and neighbours (17%) are common sources of help (see graph 14).

Graph 14: Overview of sources of social support when people feel stressed people



Of all respondents the majority want to forget the situation (78%). Generally it was regarded as useful to talk to someone when stressed or worried (72%). When there is a service available 99% of the respondents would use it. The job of a counsellor is unknown to many people: 65 % did not give an answer or does not know what a counsellor does. More then one third however, gives a meaning that is associated with giving advice (27% of the respondents with an answer), listening (20%) and knowledge about psychology (16%); see graph 15.

Graph 15: Responses on what a counsellors does.



VI. Considerations of the methodology

1. Sampling frame

This was based on experience with a similar questionnaire in Sierra Leone where a cluster sampling of 30x7 was enough to get a reasonable variance (and confidence interval). Because in Sri Lanka the sampling could be done at random, and the population is relatively small, the sample size was set on 180 families. This was higher then needed for it was anticipated to have some drop out which indeed occurred. Looking at he impact of event scale, which is a quantitative variable, around a mean score of 39.5 the Confidence Interval was 36.8-42.1. This is a very acceptable variance, which suggests the appropriateness of the sampling method used.

2. Sampling bias

It is very difficult to have a representative sample concerning gender. Because of gender roles one of the sexes (males) tend to have activities outside the houses. Therefore females were over represented in the sample compared to males (62% versus 38%). This is not representative for the gender distribution in the WFCs: 53% females above 20 years (MoH Health survey August 2000). When interpreting the data, one must be aware that females might react differently on coping with stress compared to men. For this particular survey, however, we think that the over all conclusions are not affected by this bias.
In an attempt to prevent over or under representation of age the family member with a birth date (day/month, not year) was asked to answer the questions.

3. Respondents bias

This questionnaire deals with very personal experiences and feelings. It is unavoidable, that people will be reluctant to answer frankly on some questions. Especially personnel experiences with regard to sexual violence might be underreported. As 60% of the respondents heard of rape, but only 2% witnessed rape or were affected,

The respondents did not get a physical examination Therefore complaints are perceived illnesses but also conclusions on somatisation are premature.

4. Questionnaire

The questions on the usage and effects of drugs have not been included in the analysis. It appeared during the analysis that the questions differentiating between drugs and traditional medicine were differently interpreted.

VII. Conclusions

The survey among respondents from the Welfare Centres indicates high levels of traumatic stress among the population. Every indicator used in the survey (Appraisal of Traumatic experiences, Impact of Event Scale and Physical Health) points in the same direction. The indicators are discussed below.

The responses on the second section appraise the traumatic experiences of the respondents. The high percentages on certain events (starvation (94%), witnessing wounded people (60%), having lost someone close (at least 37%) results in a clear conclusion that most respondents living in the Welfare Centres have experienced at least one traumatic experience. It is likely they have been subjected to many more.
In addition to these past experiences a majority of the respondents indicate a constant feeling of being unsafe (87%). It can be concluded that the population does not only carry a heavy burden of past traumatic experiences. They are chronically under pressure because they do not feel safe at present.
The possibility to start a meaningful life with self-control through for instance an own income is small. The pass system did not allow them to leave the camp. Subsequently only 6% has full time work. The rest (94%) is highly dependent on the WFC facilities and a small government allowance. It can be concluded that the population in the WFC is 'guarded' without a reasonable chance to rebuild their lives.

The Impact of Event Scale (Horowitz, Wilner & Alvarez, 1979) indicates high levels of traumatic stress in the survey population (82%). The final score on the I.E.S. is constructed around two clusters of reactions: intrusions (e.g. flashbacks, reliving of events) and avoidance (e.g. evasion of situations, amnesia). Neither of them contributed significantly more to the overall PTSD score.
The outcome of the Impact of Event Scale (I.E.S.) is not conclusive and should be considered with care since the I.E.S. questionnaire is not validated for Sri Lanka and the cut-off scores applied in this report are based on West European data. The outcomes on the I.E.S. should not lead to the conclusion that almost everybody in the Welfare Centres is traumatised and suffers from PTSD or other mental health problems. However, the high scores on the I.E.S. are supported by the outcomes on the appraisal of traumatic experiences (second section).

The results of third section (physical health) confirm the tendencies reported earlier. Traumatic stress associated with physical complaints, like generalized body pains (e.g. muscle, joint, back and stomach pain (including ulcer)), chest/heart problems and headache as their major complaint (resp. 38%, 27% and 23% of the respondents). The consequences of the living circumstances also trigger many complaints like eye problems (16%), and infectious diseases (22%). The visits to health facilities is relatively high (42%).

The appraisal of traumatic experiences, the outcomes on the I.E.S. and the high levels of unclear somatic complaints all indicate high levels of psychosocial and traumatic stress or even PTSD. Furthermore the high prevalence of suicide (3 times higher) among the population of the Welfare Centres bears out to the desperate situation of the internally displaced.

VIII. Recommendations

To focus humanitarian aid only to material restoration and physical needs denies the shattered emotional worlds, ignores the ruined basic assumptions of trust and the benevolence of the human beings. It leaves un-addressed the broken morale and the spiritual consequences of war.
There is a clear need for a psychosocial intervention that addresses the needs of the inhabitants of the Welfare Centres. This program should not only address the events of the past. The majority of the respondents is presently feeling unsafe. The lack of security, the poor living conditions and the ability to move freely must be addressed through an ongoing dialogue with those responsible. At the date of this final version the government has started the resettlement process.
The balance between clinical services and social components is crucial for the success of the program. The respondents indicate that when stressed 'talking' is useful (72%). The majority (82%) is not familiar with the services a counselor can offer. The relevance of using mass (psycho) education tools is supported by the survey indicating (39%) unfamiliar with the concept of stress and unable to identify it (58%).
In addition to psycho-education the social component should further focus on strengthening of the existing coping mechanisms (meditation, talking to friends/neighbours). To counteract 'learned helplessness' the community should be mobilised. The facilitation (instead of taking over!!) of local organisations, camp residents to organise community activities (recreational, skills training, education) should be an integrated part of the program.

A population that is psychologically healthy can prosper and overcome the burdens of the past. Psychologically healthy people can also solve their disagreements in less violent ways. Helping traumatised people is a matter of restoring the bond between the individual and the surrounding system of family, friends, community and society. To overcome mass traumatisation as in the case of the Sri Lankan Welfare Centres in Vavuniya the healing capacity of family and community systems supports people in their coping with extreme stress and more severe mental health problems. Psychosocial and mental health programs are evident tools in this process of adaptation and restoration. The involvement of local people in these programs is of crucial importance.

IX. References

Ajdukovic, D. (1997) (Ed.). *Trauma recovery training: Lessons learned*. Zagreb: Society for Psychological Assistance.

APA (1994). *Diagnostic and Statistical Manual of Mental Disorders*. Fourth Edition. Washington, DC: American Psychiatric Association.

Bolz, W. (1999). 'Paradies' mit der hoechsten Selbstmordrate der Welt. *Suedasien*, **3-4**, 20-23.

Bramsen, I. (1995). *The long-term psychological adjustment of World War II survivors in the Netherlands*. Delft: Eburon Press.

Bennet, S., Woods, T., Liyanage, W.M., Smith D.L. (1991). A simplified general method for cluster sample surveys of health in developing countries. *Rapp. trimest. statist. sanit. mond*, **44**, 98-106.

Dyregrov, A., Kuterovac, G. & Barath, A. (1996). Factor analysis of the impact of event scale with children in war. *Scandinavian Journal of Psychology*, **37**, 339-350.

Horowitz, M.J., Wilner, N. & Alvarez, W. (1979). Impact of event scale: A measure of subjective stress. *Psychosomatic Medicine*, **41**, 209-218.

Janoff-Bulman, R. (1992). *Shattered assumptions: Towards a new psychology of trauma*. New York: Free Press.

Joseph, S.A., Williams, R., Yule, W. and Walker, A. (1992). Factor analysis of the Impact of Events Scale with survivors of two disasters at sea. *Personality and Individual Differences*, **13**, 693-697.

Joseph, S. (2000). Psychometric evaluation of Horowitz's Impact of Event Scale: A review. *Journal of Traumatic Stress*, **13**, 101-114.

Kleber, R.J. and Brom, D. (1992). *Coping with trauma: Theory, prevention and treatment*. Lisse, The Netherlands: Swets & Zeitlinger.

Kleber, R.J., Figley, Ch.R. & Gersons, B.P.R. (1995) (Eds.*). Beyond trauma: Cultural and societal dimensions*. New York: Plenum.

Kleber, R.J. (1997). Psychobiology and clinical management of posttraumatic stress disorder. In: J.A. den Boer (Ed.*), Clinical management of anxiety: Theory and practical applications* (pp. 295-319). New York: Marcel Dekker Inc..

Makinen, I.H. (2000). *Eastern European transition and suicide mortality.* Social Science & Medicine, 51, 1405-1420.

McFarlane, A.C., Atchinson, M., Rafalowicz, E. & Papay, P. (1994). Physical symptoms in posttraumatic stress disorder. *Journal of Psychosomatic Research, 38,* 715-726.

Robbins, I. & Hunt, N. (1996). Validation of the IES as a measure of the long-term impact of war trauma. *British Journal of Health Psychology*, **1**, 87-89.

Silver, S.M. & Iacono, C.U. (1984). Factor-analytic support for DSM-III's Post-Traumatic Stress Disorder for Vietnam veterans. *Journal of Clinical Psychology*, **40**, 5-14

Schwarzwald, J., Solomon, Z., Weisenberg, M. & Mikulincer, M. (1987). Validation of the Impact of Event Scale for psychological sequelae of combat. *Journal of Consulting and Clinical Psychology*, **55**, 251-256.

Summerfield, D. (1996). The impact of war and atrocity on civilian populations: Basic principles for NGO interventions and a critique of psychosocial trauma projects. *Relief and Rehabilitation Network Paper*, **14**, London: ODI.

Summerfield, D. (2001). The intervention of post-traumatic stress disorder and the social usefulness of a psychiatric category. British Medical Journal, **322**, 95-98.

Van der Kolk, B.A., Pelcovitz, D., Roth, S., Mandel, F.S., McFarlane, A.C. & Herman, J.L. (1996). Dissociation, somatization, and affect dysregulation: The complexity of adaptation to trauma. *American Journal of Psychiatry*, **153**, Festschrift Supplement.

WHO (1992). *International Classification of Diseases* (Tenth Revision: ICD-10). Geneva, Switzerland: World Health Organization.

WHO (1994). *House Hold Survey Manual: diarrhoeal and acute respiratory disease control.* Division of Control Diarrhoea Acute Respiratory Disease. Geneva, Switzerland: World Health Organization.

Zilberg, N.J., Weiss, D.S. & Horowitz, M.J. (1982). Impact of Event Scale: A cross-validation study and some empirical evidence supporting a conceptual model of stress response syndromes. *Journal of Consulting and Clinical Psychology*, **50**, 407-414.