Médecins Sans Frontières, Netherlands

Assessing Trauma in Vavuniya, Sri Lanka.

Psycho-Social Survey Outcomes

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Abstract

This report of a mental health survey conducted in the welfare centres in the north of Sri Lanka gives an overview of the psychological and social problems that the internally displaced who live in these centres face. Suicide rates are high in Sri Lanka in general but are three times higher in the centres than the national rate, and the negative impact of the pass system, which prevents the free movement of the displaced in and out of the centres, has consequences for the economic and psychosocial well-being of the residents. A questionnaire was developed to quantify the distressing experiences of the residents as well to assess the types of physical, emotional and social problems experienced by the displaced. The MSF team who conducted the survey concluded that the residents of the centre could benefit from psychosocial support. An exclusively clinical service would not be appropriate and it is proposed that a programme would consist of a combination of psycho-education and a counselling service.

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Acknowledgements

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Summary

Welfare Centres (WFCs) are relocation camps for internally displaced people (IDPs). They offer safe, temporary housing until an area is secure enough for IDPs (internally displaced people)to permanently resettle. WFCs (Welfare Centres) were established in Vavuniya ten years ago. However, due to ongoing insecurity in the area, many WFC inhabitants have permanently settled in the Centres. The following report reveals findings from a mental health survey conducted at twenty-one WFCs in Vavuniya, Sri Lanka.

The survey was conducted between Nov. 13-17, 2000. 163 WFC (Welfare Centres) residents, aged between 25 and 34 years, were interviewed for the survey. 62% of respondents were women [1] . The majority of respondents had a secondary education. 87% of respondents lived in the WFC with their families. 58% of respondents arrived at the WFCs between 1995 and 1999. For most, the relocation to a WFC in Vavuniya marked a third displacement.

The survey revealed that WFC residents have few opportunities to permanently resettle in the surrounding area, and little chance to establish a stable source of income. 94% of residents are dependent on WFC facilities and a small government allowance for survival. Only 6% have full-time work. Respondents maintain that the 'pass system' is the main factor contributing to their geographic and economic immobility [2] .

The majority of WFC residents witnessed actions of war (65% have observed attacks on village; 77% aerial bombing, 54% mortar fire), and human mortality (60% witnessed wounding; 51% torture; 38% death by house fire). 18% of residents have experienced arrests/kidnappings, 17% hostage/detention, and 18% maltreatment (i.e. by police, government forces, LTTE (Liberation Tigers of Tamil Eelam) members, etc.). Residents report low incidences of rape (2%); however, 60% claim to have heard of rape cases [3] . WFC residents have experienced many personal losses: 37% have lost a friend or family member (30% of whom claim to have actually witnessed the death); 48% have been separated from family; 97% have lost their home or property. 94% have experienced starvation.

As a whole, WFC residents carry a psychological burden of past traumatic experiences. 87% of respondents claim they constantly feel unsafe in their surroundings. 51% of WFC residents maintain that they would prefer to permanently resettle in a no-war zone, than remain in the WFC. 37% claim they would like to return home. A minority (12%) wanted to stay in the WFCs.

Traumatic stress and psycho-social problems are frequently associated with unspecific medical complaints. 77% of respondents perceived their health to have deteriorated since displacement. 45% have sought professional help (i.e. from a doctor, traditional healer, etc.). Major health complaints included generalized body pains (38%), chest/heart problems (27%) and headaches (23%). Suicide rates in Sri Lanka are reportedly among the highest in the world (Bolz, 1999). Suicide rates among WFC residents exceed Sri Lanka's average suicide rate by three times. 24% of respondents claim they have family members who have attempted suicide.

The Impact of Event Scale (IES) measures the level of traumatic stress among WFC residents by assessing reactions of intrusion and avoidance [4] . No significant difference was found between the two modalities. The total scores of the IES (Impact of Events Scale) show that 82% of them show signs of serious mental disturbance. These findings are consistent with the outcomes of the appraisal of the traumatic experiences. Both indicate high levels of traumatic stress. People often cope with post-traumatic stress and associated feelings of hopelessness, humiliation and anger by denying and repressing memories. 78% of respondents claim they avoid painful memories.

Results from the mental health survey indicate that WFC residents in Vavuniya could benefit from psycho-social support. The exclusive provision of psychological clinical services would not be effective, since the majority of inhabitants (65%) do not understand the relevance of counselling services; a social component, including psycho-education, is therefore necessary. A social approach to treatment is also

important to facilitate community rehabilitation, restoration and mobilisation. War has long-term mental health consequences on civilians. Psycho-social programmes are necessary to improve the psychological well-being of IDPs (internally displaced people) in Vavuniya. An appropriate psycho-social programme should address the past experiences (e.g. war-related traumas) and present circumstances (e.g. feelings of insecurity, poor living conditions, and restricted movement) that contribute to the mental health of WFC residents.

Background

Context

Political: Tamils fight an extended war for an independent homeland

After Sri Lanka gained independence in 1948, Prime Minister S.W.R.D Bandaranaike made Singhalese the country's official language and Buddhism the state religion. The declaration alienated all other ethnic groups, including the Tamil Hindus (comprising 13% of the population), and precipitated the first inter-communal riots in Colombo. Sporadic episodes of violence erupted between Singhalese and Tamil extremists throughout the 1970s.

The first major Tamil rebellions occurred in 1979, in northern and eastern Sri Lanka. These resulted in violent fighting and killing between Tamils and Singhalese, and forced tens of thousands of Tamils to flee to safer areas (e.g. 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 city. The 17-year civil war between the LTTE and Singhalese has killed over 60,000 people.

Surface area	: 65,610 km2 (over 1.5 times the size of the Netherlands)
Population	: 19 million (mid - 1999)
Independent since	: Feb. 4, 1948 (from UK)
Form of government	: Republic
Head of state	: President Chandrika Kumaratunga (Nov/ 12, 1994)

Medical/humanitarian Background: Increased medical needs, shortage of drugs and medical supplies

Humanitarian conditions (e.g. access to shelter, food, water, health services, etc.) are deteriorating in the Jaffna peninsula and Northern Wanni regions. Repeated displacement of the population has forced many people to live with little or no shelter, water or sanitation. Ongoing violence in the area has resulted in an increased prevalence of psycho-social problems, traumatic stress etc.). The number of displaced persons is currently estimated at 800,000 (UNHCR). 297,200 of these IDPs are currently staying in the Wanni region (L'état du Monde 2000).

Sri Lanka has a national health care system, with a structured network and free medical care and treatment. However, the chronic war situation, particularly in LTTE controlled areas, has disrupted the system. Many healthcare workers have left the area, resulting in a severe shortage of doctors, nurses and other medical specialists. Knowledge about treatment and support to victims of violence is growing in Sri Lanka; however, due to security reasons this knowledge seldom reaches the areas most in need.

Project activities

MSF-Holland has been working in northern Sri Lanka's LTTE and government controlled areas since 1994. MSF-H is running an extensive hospital programme, in Mallavi (Mullaitivu) district. Local and expatriate staff support the surgery, paediatric, gynaecology and obstetrics departments. In Puthukkudiyiruppu, in the eastern Wanni region, MSF-H is assisting with maternal and child public health. In Vavuniya, the Sri Lankan Army's forward defence line and access point to the Wanni region, MSF-Holland has initiated a psycho-social programme that provides counselling to war-affected civilians, and promotes awareness and community strengthening (August 2000).

Vavuniya: Temporary Welfare Centres

Background

WFCs were established in Vavuniya during the early 1990s to house Tamil refugees returning from India. After registration and screening, refugees were expected to leave the WFCs as soon as it was safe enough for them to move to permanent resettlement areas. Since the conflict was relentless, however, resettlement was delayed. Soon the refugees found themselves sharing the temporary centres with a growing stream of Internally Displaced Persons (IDPs) from war-affected regions of northern and eastern Sri Lanka. IDPs with family, sufficient money or an established network were allowed to settle in Vavuniya. Today, approximately 20,000 IDPs live in Vavuniya (Government office, April 2000). 23, 000 Tamil IDPs are spread between 15 WFCs and 6 temporary camps (according to the Government Agent).

The Sri Lankan government has placed severe restrictions on the movement of Tamil IDPs, including their freedom to live, work and travel. The severity of restrictions depends on the specific policies and regulations within each WFC. In addition to restrictions on geographic and economic mobility, the pass system causes serious security risks for the IDPs. During recent fighting (Nov. 1999) and the anticipation of increased insecurity, WFC residents were unable to flee Vavuniya, because they lacked the necessary documents (namely, a travel pass).

An initial assessment: stressors and consequences

Initial assessments (i.e. focus group discussions and key informant interviews) were carried out by MSF-H in July, 2000. Findings show that the mental health of WFC residents are affected by both their past traumatic experiences (e.g. displacement, confrontation with violence, etc.) and ongoing traumatic events. Ongoing sources of traumatization include occasional violence in the WFCs and harassment by authorities or paramilitary groups (e.g. arrests). WFC residents described their confinement to WFCs as comparable to incarceration or hostage-capture. The pass system and restrictions on mobility during times of intensified violence (e.g. the November 1999 crisis) were cited as key examples of their imposed immobility.

In addition to concerns about immobility, WFC residents claimed that living conditions within WFCs cause chronic (non-traumatic) stress. Most families, averaging 6 members each, share an area of 10 square feet. They report chronic problems with hygiene and sanitation, due to water shortages and full pit latrines. Due to imposed limitations of movement and the absence of activities, WFC residents have developed a lethargic disposition. Male adults have become unmotivated due to a loss of livelihood. Their traditional roles as family providers and protectors have degraded into poor role models for their children. Female adults express symptoms of exhaustion, caused by childrearing, cooking in hot and smoky rooms (resulting in high rates of eye diseases). These problems are compounded by the ongoing conflict, and ensue in a communal sense of hopelessness about the future.

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).

The environment of conflict, compounded with difficult living conditions within WFCs (e.g. economic hardship, domestic violence, geographic immobility, etc) has contributed to an increase in psycho-social problems among WFCs residents. According to the health authorities at the Sri Lankan Ministry of Health, many WFC residents express their anguish through somatisation. Young people convey symptoms of back pains. Older residents complain of headaches, sleeping problems, anxiety, depression, alcoholism and bad

moods [5] . There are increasing rates of alcoholism, domestic violence, community disharmony and suicide [6] . The MoH of Vavuniya registered 62 successful suicides and 691 attempts between January and November, 2000 (See Table 1) [7] . Suicide rates per 10,000 within WFCs are almost three times higher than outside WFCs: 103.5 against 37.5 outside the Centres. (Nov 2000)

Welfare Centres	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

Table 1: Distribution of suicide attempt rates inside and outside WFCs (Source: MoH Vavuniya, Jan.-Nov., 2000) [8]

Coping: A Lack of balance between protective and risk factors

Research about coping mechanisms for trauma is useful for understanding the mental situation of WFC residents. Studies show that in the West 60-90% of trauma victims can help themselves, by balancing the protective factors (e.g. normal living conditions, social and cultural support mechanisms) and risk factors (e.g. length of traumatic experiences, being wounded) in their lives (Kleber & Brom, 1992). A risk analysis of WFC residents' coping mechanisms indicates that residents have difficulty balancing a normal living situation (protective factor) and their past traumatic experiences (risk factors), since they do not have a stable (i.e. non-violent) environment. WFCs residents are concerned about the erosion of community support systems (e.g. school principles, community leaders, respected elders, priests). They claim that social support from friends, family and traditional healers is often unattainable, since people live in dispersed and inaccessible areas (e.g. due to violence, or restrictions from the 'pass system'). External support offered through NGOs is said to be insufficient. Furthermore, professional expertise in psychology seldom reaches Vavuniya.

Given the lack of formal and informal psycho-social support in the WFCs, it would be logical to expect the following:

- Increased psycho-social problems (alcoholism, domestic violence etc.)
- Increased prevalence of traumatic stress and psychiatric disorders (e.g. anxiety, depression, post-traumatic stress disorder)
- Increased rate of suicide

Survey: Quantification of psycho-social and traumatic stress

The initial findings from the assessment were discussed with local health authorities. The authorities asked MSF to provide psycho-social support to WFC residents. MSF has since implemented a psycho-social programme in most WFCs in Vavuniya.

The mental health survey was conducted as a preliminary phase in the programme. The main objectives were:

- To quantify indicators of psycho-social and traumatic stress (e.g. what people have experienced; to what extent events have resulted in traumatic stress; what other medical needs exist)

- To collect general information about local coping mechanisms for stress (e.g. community/traditional support systems, etc.)

Theoretical framework of PTSD

Post-Traumatic Stress Disorder (PTSD) causes serious and prolonged disturbances (McFarlane, Atkison, Rafalowicz & Papay, 1994; Van der Kolk et al., 1996). Diagnostic criteria for PTSD include the following:

- An extreme stressor

- Intrusive and re-experiencing symptoms

- Avoidance and numbing symptoms

- Symptoms of hyperarousal

- Symptoms of criteria 2, 3, and 4 should be present at least one month.

(Diagnostic and Statistical Manual of Mental Disorders, 4th ed. (DSM-IV); APA, 1994) [9]

Traumatic events can result in a variety of mental disorders. Not all disorders proceeding traumatic events comprise PTSD. Co-morbidity has been found to be more prominent in trauma patients than was originally assumed (Kleber, 1997). The challenge for understanding the Sri Lankan context, is that Western conceptual frameworks for psychological stress and mental disorders are not necessarily valid. Understanding mental disturbance among WFC residents requires a new psycho-social theoretical framework and practical approach (Kleber, Figley & Gersons, 1995; Summerfield, 1996).

Research has shown that nearly all war victims experience recurrent and intrusive recollections, dreams, and sudden feelings of re-living the event (e.g. Bramsen, 1996). These responses are combined with increased tension, avoidance of stimuli associated with the trauma, and numbing. According to cognitive processing models, people can deal with (i.e. reconcile) traumatic experiences by oscillating between reactions of intrusion and avoidance (Creamer: 1995). Physical symptoms such as headaches, stomach pains, and back pains are part of this process. These physical symptoms frequently cause persons to seek medical attention.

Theoretical framework of the Vavuniya Psycho-social Questionnaire

Psycho-social health can be evaluated through several clinical techniques. At one end of the theoretical spectrum is the Western 'unitary' approach, which interprets mental disorders as having universal biological and behavioural symptoms; at the other extreme is the school of trans-cultural psychiatry, which interprets mental disorders as having distinct, culture-specific behavioural symptoms. A Western cognitive theoretical

framework was used for this study for pragmatic reasons: MSF sought to extract quantifiable information within a short period of time. No trans-cultural psychiatric model specific to Sri Lanka exists; therefore, the Western model was as good as any.

The ongoing psycho-social 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 psycho-social problems, PTSD and psychiatric co-morbidity (e.g. depression, anxiety disorders, etc.). The survey and questionnaire focused primarily on chronic traumatic stress. (Non-traumatic) chronic stresses caused by living circumstances were included in the assessment, by means of focus group discussions and key informant interviews. Diagnostic and measurement techniques for psycho-social disorders caused by chronic conflict need to be developed. A questionnaire was developed to assess the prevalence of traumatic and psycho-social stress. Three key indicators were used:

Risk & protective factors: In order to understand the extent to which someone is traumatized, it is necessary to identify the type of trauma s/he has experienced (Kleber, Brom; 1992). Traumatic experiences can be categorized into four types : 1) Direct, life-threatening confrontation, 2) Witnessing, 3) Personal loss (e.g. loss of property, loved ones, etc.) and 4) Exposure (e.g. living in an insecure area). The intensity with which an individual suffers from trauma, depends on his/her 'protective' environment; that is, it depends on his/her access to social, moral and economic support, education, access to mental health services, etc. Individuals who live within a 'protective' environment generally develop coping mechanisms to deal with their trauma and, consequently, are able to restore psycho-social health. Individuals who have no source of psycho-social support, on the other hand, often struggle to re-adapt. The psychological impact of stress between individuals who actually experience horrific events (e.g. direct confrontation through torture, rape, etc.) and those that have been exposed to it (e.g. live in an insecure environment) can be the same. Both are equally at risk of developing psycho-social problems or psychiatric disorders, such as PTSD, depression, anxiety disorder (Kleber, Brom: 1992).

Impact of the events: The Impact of Events Scale (IES) was used to measure levels of intrusion and avoidance. IES has proven to be a valid tool for analysing chronic stress and long term trauma internationally (Joseph, 2000) ; however, there are concerns that it may not be entirely appropriate for use in the Sri Lankan context. Cut-off scores developed from experiences in Western Europe (i.e. no problem: 0-10, at risk: 11-25, Serious metal Disturbances: 26-75) were used to compensate for this problem. Caution was taken when interpreting IES outcomes, since the correlation between IES and PTSD scores is indirect (Summerfield: 2001); IES scores do not directly represent PTSD scores, and vice versa.

Appraisal of physical complaints: People suffering traumatic stress and PTSD often express somatic symptoms, such as headaches, stomach problems, general body pain, dizziness or palpitations (Van der Kolk, et al: 1996). A high prevalence of unspecified health complaints may indicate a possible high level of traumatic stress or PTSD. Information about people's somatised physical complaints was acquired through open-ended questions. Data about residents' perception of their own health, and about their health management techniques (e.g. choice of health care institution, frequency of visits, reasons for going, etc.) were recorded using the Lickert scale.

The presence of all three indicators of traumatic stress among WFC residents - namely, i) previous traumatic experience (e.g. direct confrontation, witnessing, personal loss and/or exposure), ii) IES measurements of intrusion and avoidance and iii) somatisation of mental problems) provide strong circumstantial evidence for the prevalence of traumatic stress.

Methodology of the survey

Training and translation

Four survey teams were selected to conduct the study. Each team consisted of four people: two of MSF-Holland office staff (expatriate and national) and two volunteers from the Holy Cross Sisters. The training of the survey staff included an introduction to MSF, the 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 trained to deal with (emotional) reactions that survey questions evoked. They were also informed about referral possibilities for psycho-social support. Staff was debriefed daily, both during survey training and the actual survey procedure.

The original questionnaire (i.e. draft) was translated from English into Tamil. Fifteen questions were translated by the Colombo University [10] ; MSF staff translated the rest. A revised questionnaire was written once everyone's comments were included. The second draft was discussed with 20 volunteers from a local NGO, Holy Cross Sisters, who lived in the WFCs. The volunteers were asked to complete the second draft questionnaire with someone they knew. This pilot test resulted in 30 completed questionnaires. The 20 volunteers discussed the questionnaire a third time, and gave feedback about certain questions. The remarks resulted in the final Tamil version of the psychosocial questionnaire, used in this survey.

Target & Sample Population

The survey was conducted with the permission of the Ministry of Health and District Official, between November 13-17, 2000. It was assumed all WFC residents had experienced trauma; therefore, there was no need to distinguish between recent and long time residents. The target population was divided over twenty-one WFCs. The population of Vavuniya's WFCs is 22,829, according to a Government Agent (See Table 2). During the survey period (and preparation) only minor population changes were registered in the Sanasa Centre (reduction of 165 households).

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

Table 2: Overview of Welfare Centres, number of families and persons
(Government Agent July 2000) N.A. = no data were available at the time of assessment.

A random sampling method was possible, since all families had registered at the WFCs. The sample size was set at 180 (N=180), which is adequate for a random sampling in a population of 23,000. The sampling technique was based on health surveys and methodologies described in various handbooks.

The sample group (i.e. number of respondents) from each WFC was determined by means of a calculation: The total WFC population (determined by means of registration lists) was divided by the number of WFC households, yielding a sample size of 180 participants. Households were randomly selected from registration lists in each centre. Once households were selected, residents 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. If a targeted informant was not present, the interviewer would return for maximum three times. No replacement was organized for those who refused to participate, or those who did not turn up. Data was missing from WFCs in Iyangarau and Pavatkulam.

The Interview

The structured interview was based on the psycho-social questionnaire described above. To reduce emotional reactions, questions were put as factually and simply as possible. When unclear, a short explanation by the interviewer was allowed. Participants were not allowed to fill in the questionnaire later, nor 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 expatriate staff conducted the interview with the assistance of a translator from the national office, 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).

The interviewers began the survey by introducing respondents to the survey team, explaining the background of MSF, and discussing the purpose of the survey. Four issues were clearly addressed during WFC respondent's orientation:

- Participants would not receive any compensation
- Data would remain confidential
- Interview would last for a maximum of 40 minutes
- Participation was voluntary and the participant could decide at any moment not to co-operate.

The timing of the interviews was crucial to ensure that respondents would complete the survey. Respondents had to be at home and not busy. 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 if they deemed the questions too emotionally upsetting. When the counsellor believed that the participant needed follow-up support, referral to professional counsellors was facilitated.

Data registration

The forms were registered anonymously. Data were entered into an EXEL spreadsheet and analysed by EXEL and EPIINFO-6.

Results

The survey teams completed 163 interviews (N=163). None of the informants refused to be interviewed. Seventeen interviews (of the originally planned 180) were not conducted for various reasons:

- The population of the Sanasa transit centre was reduced by 50%; consequently, six interviews, of the planned twenty, were cancelled.
- Nine interviews were cancelled because respondents had left the centre
- Two interviews were cancelled because respondents were still unavailable after three visits. No replacements were appointed for those missing.

Demographics (First section)

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

Respondents varied in age between 19 and 98 years; 37% of respondents were aged between 25 and 34. The higher prevalence of this age group is representative of the WFC resident population. All respondents were educated, most until the secondary level.

Graph 1: Age Groups & Education

In total 7% of the respondents were displaced after November 1999 while 36% of respondents were displaced before 1995. The majority of respondents (58%) claim they were displaced between 1995 and November 1999. 87% of respondents fled with their families. The average number of displacements was three times.

Graph 2: Frequency and start of displacement

The majority of respondents (51%) claimed they would like to resettle in a quiet area. Of these, only 37% wished to return home and 12% wished to stay in the WFC.

Graph 3: Overview of the preferred location of resettlement

A person's ability to adapt and cope with stress can be affected by his/her ability to (re)build a meaningful life, by means of seeking employment, pursuing cultural activities, etc. (Kleber, Brom; 1992). Only 6% of respondents had full-time employment; 16% had part-time work; the remaining 78% were unemployed.

Appraisal of traumatic experiences (Second section)

Exposure to, experience and witnessing of traumatic events

Graph 4 shows the exposure respondents have had to traumatic events. Incidents such as attacks on village comprised 65% of respondents' experiences, exposure to cross-fire comprised 50%, explosion of mines 21%, aerial bombing 77%, mortar fire 54%, the burning of houses 30% and destruction of properties 75%. These findings indicate that a large proportion of WFC residents have experienced war activities. In addition to the direct threats caused by these hostilities, poor access to food and other commodities have forced people to consider extra risks, such as escaping from a safe settlement, travelling outside safe areas to gather food, etc (34%) .

Graph 4: Overview of the exposure to traumatic experiences

Coping with traumatic events is more difficult when people are experiencing immediate life-threatening circumstances (Kleber, Brom; 1992). Graph 5 indicates the different life-threatening traumatic experiences respondents claim to have encountered. Some feared at least once for their physical integrity either through injury (13%), arrest/kidnapping (18%), hostage/detention (17%), maltreatment (17%) and torture (11%). Few stepped on mines (4%) or experienced rape (2%). The relatively low report of rape (2%) should not be misinterpreted. Rape is often a taboo subject. It is not common for rape victims to report their experiences, for fear of repercussions from their family and social stigma in the community.

Graph 5: Overview of respondents' traumatic experiences

To create terror and impose psychological stress the perpetrator often demands others to witness the atrocities. Witnessing others being wounded (60%) burnt in their house (38%), arrested or killed (25%) and tortured (51%) can impede the normal coping (healing) 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%). Based on the stories about rape one would expect higher numbers of rape. However, the underreporting of sexual violence is only one explanation for this discrepancy. It may also be that indeed the occurrence of rape is relatively low. However the shock caused by it results in many rumours and increased feelings of being unsafe.

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

Loss and witnessing death of loved ones

Conflict and violence are closely related to the loss of loved ones (See graph 7). Losses within the nuclear family were significant: 7% reported loss of a partner, 9% loss of child(ren), 12% loss of parent(s), 17% loss of sibling(s) and 10% loss of aunts/uncles. Other losses included that of friends (27%) and neighbours (37%). Findings reveal that at least 37% of WFC residents have lost someone they know very well. Many of these residents have actually witnessed the deaths themselves: 6% witnessed the death of their partner; 10% witnessed the death of their own child; 14% witnessed the death of a friend; 30% of a neighbour.

Consequences of violence

As a consequence of the ongoing conflict, 94% of respondents claimed to have suffered starvation at least once. Other reported consequences of violence include: missing or separation from relatives (48%), various degrees of disability (52%) (e.g. physical disability, geographic and economic immobility, etc.), lost property and possessions (97%). To start the process of integrating traumatic experiences a basic feeling of safety (at least the perception) is necessary. Under the current circumstances, processing traumatic events seems impossible for the majority, because 87% feel constantly unsafe.

Graph 7: Overview of loss and witnessing of the violent death of loved ones

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

Impact of Event Scale (Third section)

IES scores from the questionnaires were high. When cut-off scores for Western Europe were applied (no problem: 0-10, at risk: 11-25, serious mental disturbances: 26-75), only 11 % of respondents showed a psycho-social state corresponding to the "no problem" category. 7% were at risk of developing serious mental disturbances. 82 % already have scores that indicate serious mental disturbances. No significant difference was found between the contribution of intrusions and avoidance on the overall traumatic stress

score.

The average score of trauma among WFC residents 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 composed of avoidance and intrusion score

Results from the IES measurements are consistent with our findings from the initial appraisal of traumatic experiences. The reported high numbers of traumatic experiences may explain the high scores on the IES. However, this conclusion has to be read with care. The IES is not validated in Sri Lanka and may therefore be subjected to differences in comprehension (e.g. people may interpret questions differently). Moreover, the cut-off scores may be distinct from those used in Western Europe. In spite of these considerations, high levels of traumatic stress are evident, even when the cut-off point is raised to 55 (more than double). 13% of residents still suffer serious mental disturbances. High scores on the IES are only indicative of PTSD.

Physical health (Fourth Section)

Physical complaints

Traumatic stress and PTSD are often associated with physical (i.e. somatic) complaints such as headaches, stomach problems, body pain, dizziness or palpitations, etc., that do not actually relate to a physical malfunction or disorder (McFarlane, Atkison, Rafalowicz & Papay, 1994; Van der Kolk et al., 1996). 77% of respondents claimed their health has deteriorated since the onset of violence. Nearly half (45%) have sought professional help from doctors, traditional healers or medicine men within the last month. 33% of respondents have visited the health post/clinic in the last 4 weeks alone.

	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

Table 3: Overview of perceived health and the number of health post/clinic visits

31% of 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 primary or secondary complaints. The consequences of the living circumstances also triggers many complaints such as eye infections (16%) and infectious diseases (22 %).

Respondents did not receive a physical examination; therefore, conclusions about somatisation are premature. Bearing this in mind, complaints frequently associated with traumatic stress have a high prevalence.

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

Suicide

Committing suicide is a clear sign of hopelessness. The relation between suicide, traumatic and psycho-social stress is not very clear. In our survey 24% of the population (N=162) reported to have someone in the family that attempted suicide. The survey data confirm the high suicide rates in the WFCs already reported by the authorities during the qualitative assessment.

General questions (Fifth section)

The last section of the questionnaire focused on general opinions about definitions and interpretations of stress, coping resources and protective factors. Stress was defined by respondents as a state of pre-occupied thought (e.g. worrying, absent mindedness) (38%), sadness (7%) or emotional due to current circumstances (7%). The majority of the respondents (52%) knew someone who was 'stressed'.

It must be noted, however, that the concept of 'stress' was unknown to a substantial number of respondents (39%). Respondents had difficulty observing stress in other people (51%). Those who answered this question identified 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 11: Overview of the respondents' answers on what is stress

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

The majority of respondents indicated that they coped with stress (i.e. helped themselves) by doing meditation (31%) or distracting themselves through talking to friends (22%). It was possible to give more than one answer (N=189, 30 with a second answer).

Graph 13: Overview of self-help mechanisms among respondents

In addition to the above self-help mechanisms, people claimed they mobilize social 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

Respondents claimed they often dealt with stress by trying to forget their trauma (78%). Most thought it was useful to talk to someone when they were stressed or worried (72%). 99% of respondents claimed they would use a therapeutic service if it was available.

Most respondents are not aware of what a counsellor is (i.e. they do not understand the job profile or services offered by a 'counsellor'). 65% of respondents did not answer the question asking to describe the job of a counsellor. Of those who did answer, more than one third defined 'counsellor' in terms of someone who gives advice (27%), listens (20%) and has knowledge about psychology (16%). See Graph 15.

Graph 15: Responses on what a counsellor does [blank answers not included]

Considerations of the methodology

1. Sampling frame

A systematic random sample was obtainable, due to the rigorous registration procedures at WFCs. The WFC population was relatively small, and a sample size of 180 was agreed by means of a statistical calculation (See Section 5) The sample size was made higher than necessary in anticipation of respondent drop-outs. The IES revealed a mean score of 39.5, and a Confidence Interval of 36.8-42.1. This means that when the test would be repeated 100 times, 95 times the outcome will be in the range of 36.8 - 42.1, which is in view of the contracted variable and the use of the results a very acceptable precision. This variance suggests the appropriateness of the sampling method used.

2. Sampling bias

It was difficult to obtain a representative sample, due to the fact that many men were outside the 'house' during the day. The percentage of women interviewed (62%) is not representative of the gender distribution in WFCs. In general, the gender population in WFCs comprise 53% females above 20 years (MoH Health survey August 2000). When interpreting the data, one must be aware that females might react differently to traumatic events than men (Kessler et al., 1995; Breslau et al, 1998, 1999). However, studies in West European settings about PTSD in response to accidents, natural disasters or death of beloved one, show that men and women react to stress in similar ways (Kessler et al., 1995; Breslau et al, 1998, 1999). Whether these findings from Western settings are applicable to the Sri Lankan context remains unclear.

3. Respondents bias

The survey dealt with very personal experiences and feelings. It is unavoidable, that people will be reluctant to answer some questions honestly, especially regarding sexual violence. The discrepancy between the percentage of respondents that heard of rape (60%) and those who actually witnessed or were subjected to it (both 2%), is an example of a possible respondent bias.

4. Questionnaire

Questions about the usage and effects of drugs were not included in the survey. During an initial questionnaire, it became clear that residents did not clearly distinguish between traditional medicine (e.g. herbal medicine) and Western pharmaceutical drugs. Questions about the consumption and effectiveness of 'drugs' were often misinterpreted by respondents. These observations have relevant implications for cross-cultural medical assessments. Western biological and reductionist definitions of medication are unintelligible to Vavuniya's WFC population, since they understand medicine as comprising a mix of different approaches (e.g. Western, traditional herbal, spiritual, etc.)

Conclusions

All indicators from the survey (i.e. Appraisal of Traumatic experiences, Impact of Event Scale and Physical Health) show that WCF respondents suffer high levels of traumatic stress. This is evident from the high percentages of starvation (94%), witnessing wounded people (60%), having lost someone close (at least 37%) among respondents living in the WFCs. In addition to these past experiences, the majority of respondents described a constant feeling of being unsafe (87%).

The possibility to maintain a sustainable livelihood is small. The pass system does not allow WFC residents to leave the camp. Subsequently only 6% of residents have full-time work. The rest (94%) are 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.

IES findings show that WFC residents experience high levels of traumatic stress (82%). IES results were based on two criteria: intrusion (e.g. reports of flashbacks, reliving events) and avoidance (e.g. coping with stress by evading topics, amnesia). Both factors contribute equally to the overall PTSD score. IES findings are not conclusive and should be considered with care, since the IES questionnaire is not validated for Sri Lanka and cut-off scores are based on West European data. IES results do not imply that all WFC residents are traumatised and suffer PTSD or other mental health problems.

Questionnaire results about physical health confirm that traumatic stress is somatised in the form of 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). In addition to previous traumatic experiences, current living conditions within the WFCs trigger health problems, such as eye infections (16%) and infectious diseases (22%). The questionnaire appraisal of traumatic experiences, IES findings, and high levels of somatic complaints all indicate high levels of psycho-social and traumatic stress (including PTSD). Furthermore the high prevalence of suicide (3 times higher) among WFC residents illustrates the perceived hopelessness of the situation.

Recommendations

There is a clear need for psycho-social intervention that addresses both the emotional and social needs of WFC residents. A programme should not only address past traumatic experiences, but should also address residents' current concerns about lack of security, poor living conditions and the inability to move freely. An ongoing dialogue between programme implementers and health authorities should be initiated to help facilitate the process. At the date of this final version the government has started the resettlement process.

The dialogue between MSF and health authorities has resulted in a modification of the pass system (giving more freedom of movement to WFC residents), improved living conditions (e.g. education, water and sanitation infrastructure, etc.), and relocation of residents to other resettle another 3,600 by 2002.

A balance between clinical services and social rehabilitation is crucial for a successful programme. WFC residents use certain coping mechanisms to deal with stress and trauma (e.g. talking (72%). The majority (65%), however, is not familiar with the services a counsellor can offer. (Psycho) education would be useful to familiarize people with the concept of stress and help them identify and treat it. In addition to psycho-education, social rehabilitation could help to strengthen existing coping mechanisms (e.g. meditation, talking to friends/neighbours). The community should be mobilised to counteract 'imposed helplessness'. Local organisations and WFC residents should collaborate to organise community activities (recreational, skills training, education, and integrate them into programme).

A population that is psychologically healthy can prosper and overcome burdens of the past. Psychologically healthy people can also solve disagreements in less violent ways. Helping traumatised people is a matter of restoring the bond between an individual and his/her surrounding system of family, friends, community and society. Vavuniya's WFC residents need to be given the opportunity to help themselves, through the restoration of family and community support systems. Psycho-social and mental health programmes are evident tools in this process of adaptation and restoration. The involvement of local people in these programmes is of crucial importance.

Notes

1. This is not representative of gender proportions in the WFCs. Females generally comprise 53% of WFCs' population.

2. The 'pass system' is designed to restrict the movement of IDPs. IDPs can stay at an WFC on the condition that they adhere to rules of mobility. Residents require special passes in order to leave the Centre temporarily. These passes are granted to individuals on a daily basis, and are limited in availability.

3. Rape is often a taboo subject, and difficult to discuss in an interview setting. It is possible that the percentage of rape victims is higher than alleged.

4. **Intrusion** refers to a direct or indirect emotional and visual re-enactment of a traumatic event. Examples of intrusions include nightmares, daydreams, emotional fluctuations and startle responses triggered by situations similar to the original event. The opposite of intrusion is avoidance. **Avoidance** is an intra-psychic process in which traumatic memories are ignored and denied. Avoidance is expressed through emotional numbness, the avoidance of specific thoughts, images and activities reminiscent of the trauma, and a loss of sense of reality.

5. Most of these conditions are treated with drugs (e.g. Diazepam).

6. The most common ways of committing suicide include ingesting allory seeds, agricultural chemicals or burning.

7. These numbers are likely even higher, since those who are not able to reach the hospital or other health care facility (i.e. those who die at home) are not included.

8. Males have higher rates for both attempts (54%) and successful (74%1) suicides (MoH Vavuniya). Children below 10 years old account for 11% of suicide attempts. It is likely that these 'attempts' are rather the result of accidents (e.g. confusing agriculture poison with sweets) and not the result of deliberately planning. 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.

9. The concept is also included in the International Classification of Diseases (ICD-10) of the World Health Organization (1992).

10. These fifteen questions had already been used in Sri Lanka by the NGO International War-Related Trauma & Humanitarian Intervention (IWTHI).

Appendix 1: References

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