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Abbreviations:

AAAS: American Association for the Advancement of Science
AI: Amnesty International
AIDS: Acquired Immunodeficiency Syndrome
APA: American Psychiatric Association
HIV: Human Immunodeficiency Virus
ICN: International Council of Nurses
n.d.: No publication date given
PHR: Physicians for Human Rights
PTSD: Post Traumatic Stress Disorder
WHO: World Health Organization
WMA: World Medical Association
WPA: World Psychiatric Association

AI Index: ACT 75/03/93
Distr: SC/PG

Amnesty International
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30 September 1993

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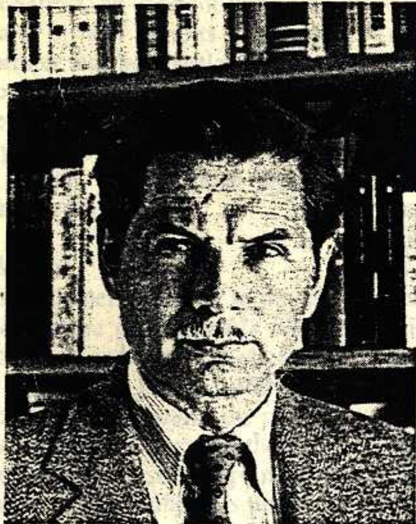

Psychopathology of torture victims

A phenomenological description of the situation of torture as an aid to understanding the development of late and/or chronic psychiatric states following torture

By
*Lawrence Hartmann, MD, et al**

Chilean experience[1,2], as well as international experience[3-6], has demonstrated the regular development of a clinical picture immediately following torture, which corresponds in many ways to what DSM-III (American Psychiatric Association 1980) describes as *acute posttraumatic stress disorder* (308.30). It consists of anxiety, fear, nightmares involving the traumatic situation, a certain degree of numbing of responsiveness, inability to find pleasure in activities that were formerly pleasurable, hypervigilance, sleep disturbances, survival guilt, etc. Among those tortured, there are some who seem to heal with or without psychiatric or psychological help; but after a while they develop a depressive or schizophrenic-like state, to which the theme of the torture experience is central. This takes place often after the patient and the relatives think there has been complete resolution of the trauma.

The Chilean researchers in this field, Lira and Weinstein[1,7], insist on a feature regularly observed in persons who suffered the torture experience: "general impoverishment manifests itself concretely as a major lowering of the capacity to work and of the capacity to cope with usual life situations, particularly interpersonal relationships." We are in complete agreement with these authors' observations. In addition to the reaction immediately following the experience of torture, described as *acute posttraumatic disorder*, one finds a deep personality change in a high proportion of the cases.

Global change in personality and behaviour, which we have observed in this and in other patients, greatly resembles what has been described by Venzlaff[8] and Baeyer[3,9] as "reactive change of personality" among many victims of Nazism. The subject not only reacts to torture with tiredness lasting days, weeks, or months, but remains as a tired human being, relatively uninterested and unable to concentrate. We have also observed chronic post-traumatic syndromes that take a depressive form.

There are also some cases that present neither a schizophrenic-like nor a depressive-like picture. These cases are characterized by only the change of personality with a general impoverishment, particularly of emotions and affective life.

What in torture makes possible a change of such nature that it appears similar to psychotic processes and to disorders of organic origin? We may be able to help to answer this question if we determine the essential features of the torture situation in comparison with other circumstances that are also called *stressful* by North American psychiatrists, or *limit situations* by the Germans. Toward this end, we will try to suggest a phenomenological description of the situation of torture.

Phenomenology of the torture situation

Absolute asymmetry

One of the fundamental traits of the interpersonal encounter as described by Baeyer[9] and Buber[10] is its symmetry. A true encounter can take place in the framework of equality and of respect[11]. The first feature characterizing the situation of torture is, in turn, the *absolute asymmetry* of the torturer/tortured relationship. The former holds complete power, while the latter says in a condition of total or near total defencelessness. There is nothing he or she can do to defend himself or herself, or to strengthen his or her position by using intelligence or physical power. Handcuffed and blindfolded, he or she cannot even confront the torturer with his or her eyes, unveiling boundless misery. The power of the tormentor is oriented toward inflicting harm and, eventually, obtaining the involuntary change or destruction of the subject being tortured. The inflicted damage is not only physical but also psychological. "The breakdown techniques... aimed at the transformation of all time and all place, including the prisoner's cell, in a constant torment that does not allow the subject to recover from his sensation of defencelessness".

Anonymity

The second feature peculiar to the situation of torture is its *anonymity*. Torturer and tortured did not know each other up to that moment. The victim does not even know the name of his or her tormentor, and the latter is frequently misled by his superiors regarding the victim's true identity. They both represent a collective entity in front of the other. For the torturer, the victim is not a specific human being but a *terrorist* or a *communist*, the representative of an enemy group, who has to be destroyed because of the instructions and training that the tormentor has had; for the victim, the tormentor is a symbol of all the totalitarian state that has disrupted his or her life and that now keeps him or her on the verge of death. This loss of the personalized element within the torturer/ tortured relationship partially explains the excesses of violence that can be reached by the former, and also the extreme degree of defencelessness that can be achieved by the latter. In an earlier work, The phenomenology of violent behavior[12], we reached the conclusion that, as in the literature on wartime propaganda, one of the factors that allow and stimulate aggressiveness in man is the depersonalization of the other person. The proximity of the loser

is, in contrast, an element that in animals and in man inhibits aggression. The torturer may be a partial sad exception to this atavistic rule, since his violence may become exacerbated not just by depersonalization but also by some aspects of this close intimacy with the victim.

Double bind

The third element peculiar to the situation of torture is the *double bind* in which the tortured one is caught. It is an awful alternative: Either suffer to the limit of pain, or *denounce* the political comrade, the belief or cause, the friend or relative. In the first case, pain can be so intense that the subject is unable to resist: his or her only way out is confession and/or denunciation, which could eventually save his or her physical life, but which represents a serious threat for his or her psychological balance. By denouncing, the victim is going to destroy parts of his or her own self, of his or her identity, as she or he is betraying the collective bonds that give meaning to existence. Denunciation "indirectly transforms the tortured one into the torturer of his own companions..."[1]. In a way, the whole social and political situation that surrounds the tortured one has a *double-bind* character, because totalitarian systems widely impose upon their opponents traps and conflicts from which escape is not possible. This situation generates a constant level of anticipatory anguish: in the most thoroughly set traps and double binds, the only way of overcoming this anguish would be the renunciation of values, friends, life projects. In other words, the subject harassed because of political ideas, who is arrested and tortured, is exposed, relatively defenceless, to a series of cruel choices that are marked by the character of a *double bind*. He has to choose between his or her own life and that of a comrade, between his or her physical integrity or his or her values and beliefs, between the integrity of his or her family and that of his or her political organization, etc.; and all this within a framework of the most absolute lack of confidence.

Falsehood

The act of torturing is surrounded by *falsehood*, by lies. Its scope is the opposite of truth in the sense of the Greek concept *aletheia*, that is to say, of *discovery* in common with the other person, of revealing senses, which gives meaning and plenitude to the subject and to the other person. The charges that lead to arrest and imprisonment are often or usually false, and false is the route that will take the victim to the place where he or she will be tortured. The different disguises with which the tormentors hide their identities represent other forms of the deceit inherent in torture. The victims are kept in places that are either dark or brightly artificially lit. Natural light, closely related to the concept of trust as *aletheia*, is banned from those spaces, where lies reign. Generally at least some of the threats are also false. It is not the wife that is hollering while being raped in the next room but another person, or a simulated voice. It is often not true either that the subject submitted to torture has been denounced by his or her best friend, or that his or her children have been kidnapped. The horrible practice of *mock executions*, recounted by the majority of freed prisoners, is an extreme form of falsehood, imprinted on one psychological bedrock for human beings: our own life and death. The temporospacial sensory disorientation that this is aimed at represents a kind of twilight of consciousness, that is to say, a state of consciousness contrary to and undermining the only one able to discover truths and meanings: alertness, wakefulness, clarity, sense of self. Such processes often end with the signing of a document in which the tortured, without being allowed to read the text, acknowledges that he or she has been treated correctly and agrees to blame himself or herself for various *terrorist* acts (also fake), thus, for example, seeming to make him or her deserve a prison term, justifying further repression by the government against him or her, or others, etc.

Spaciality

In torture, space and spacial objects and substances are deeply altered. We have already seen how the route to the site of torture is concealed and faked; how the cells are very small, emptied of all personalizing contents, either dark or lit by a persistent and exhausting artificial light. In this space, objects appear perverted, their natural sense distorted. The bed, traditionally made for resting, or for loving encounters, is specifically transformed into an instrument of torture by electrical wiring. Water, that usually quenches thirst or cleans, is transformed into an abominable substance, source of a form of suffering difficult to surpass - the immersion of the head into the water, to the point of choking. The cell itself, the place where even the poorest and most abandoned of the human beings might expect at least rest in sleep, becomes another cause of suffering when filled with noises or light, or by constant arousals of the prisoner during those endless day-nights and night-days. Further, one's own body is transformed through the torture process into something spiteful or betraying (because it hurts and complains in spite of one's will), or alien (at times the only way of bearing pain is perceiving the body as not one's own) or even repellant (e.g. when it has been sexually assaulted). The body of another person, normally perceived as potential company and warmth, object of aesthetic admiration and/or sexual attraction, is transformed by the torture situation into a perverted and refined instrument of hurt, by pain, humiliation, rape. And not rarely, a dog, man's traditional guardian and friend, is trained to menace and to carry out a twisted function such as acting sexually upon a human being.

If, as we have developed in another context[13], the spaciality of love is characterized by overcoming the principle of the vital space in the sense of Bollnow[14], acceding existence to a space without limits that allows the reciprocal enrichment of the lovers, the spaciality of torture's aggressive behaviour represents exactly the contrary: displacement, trapping, narrowness and destruction. The spaciality of torture is an extreme version of the spaciality of aggression, because in it there is not only displacement and narrowness but invasion of the body itself by another person, through the instrument of torture or sexual aggression. The intimacy that is produced between torturer and tortured is comparable with the one of love, but with the opposite sign: love exalts, while torture diminishes; love dignifies, while torture represents the maximum indignity that a human being can suffer; love is life and in a certain degree eternal life, while torture has qualities of incessant death.

Temporality

Time is also deeply altered in torture. Unlike usual rhythms of life, advancing from the past toward the future through rhythms and periods, crises and stages, interwoven with seasonal cycles, the time of torture is characterized by some unpredictability and much circularity, having no end. This feeling of endlessness has little to do with the eternal character typical of the temporality of love[13,15]. Torture is carried out at erratic times to suit the schedule of the torturer and to confuse and disorient that of the victim. The victim never

Lichtung.

knows when the process will begin again. The majority of patients personally examined by one of us (O.D-Z.) insisted that what most tormented was not so much the physical pain in itself as the feeling that it had no knowable end, that perhaps it would never end. In torture, existence is withdrawn from usual interaction between present, past and future, and reduced to a pure unbearable present. There seems to be no other future than a new torture session, or perhaps death, with which the victim is threatened again and again. The past is destroyed through insult, disqualification, false charges, undermining of beliefs, concepts, values, and cruel calumnies about family members.

These six areas may help us to understand the development of late and/or chronic psychiatric states following torture; the features described undermine basic human structures, which can probably not be affected without seriously altering the person as a whole. *Asymmetry* and *anonymity* of the relationship between torturer and tortured create a significant threat to the *interpersonal encounter* in the sense of Heidegger's *Miteinandersein*[16] and Martin Buber's *I-You* relationship[10], that is, threats to essential interpersonal human structure, to fundamental personal and reciprocal qualities. Then Bateson's *double binds*, though rarely now thought centrally caused in schizophrenia, retain a significant place as a clinical organizing and psychopathology-fostering principle in psychiatry and family therapy. It would be parsimonious and consistent with many data to think that the loss of identity and self-esteem observed in the chronic sequels of torture have to do with the forceful *double-bind* element characterizing the communication style between torturer and tortured. Some evidence from the rehabilitation of torture victims trends to confirm this[5].

The *falsehood* surrounding the torture situation seems to us particularly related to that deep mistrust that characterizes the persons who have survived torture. Trust and truth are etymologically related, and trust is only possible within the framework of truth as *aletheia*, as *clearing* (*Lichtung*) in the sense of Martin Heidegger[16]. And finally, as we noted, torture also causes destruction and distortion of major aspects of *temporality* and *spaciality*. Both certainly interfere with a coherent sense of self. The first leads more to a loss of motivation, while the second - the break in *lived space*, as Erwin Straus[17] would say - severely damages tortured people's sense of their own place in the world, of home and hearth and community[18]. The tortured person becomes something of a psychologically *homeless* person.

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Acknowledgement

This article is an exadaptation of an article by Otto Doerr-Zegers, Lawrence Hartmann, Elizabeth Lira, and Eugenia Weinstein: *Torture: Psychiatric Sequelae and Phenomenology*, published in Psychiatry, Vol. 55, May 1992.

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TORTURE, THE MOST DESTRUCTIVE WEAPON AGAINST DEMOCRACY

S t a t e m e n t

by

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Denmark

Torture, the most destructive weapon against democracy

Mr. President, Ladies and Gentlemen,

Thank you for permitting me to address you in this in my opinion most important question in our world today: Governmental torture - torture performed with the knowledge of governments, governmental torture, the most destructive weapon against democracy.

I want to explain how our analysis as medical doctors led us to this conclusion.

The medical work against torture started 20 years ago as an unpolitical - neutral help to victims of torture.

We started with systematical examinations of torture victims (torture survivals) by medical doctors.

Very quickly came surprise number 1: torture creates aftereffects, torture is not only horrible, unbearable when performed in torture chambers. There are after-effects, and in the seventies this was new knowledge. There are physical after-effects, but worst of all are the psychological after-effects: depression, anxiety, nightmares, feeling of changed personality, shame, guilt, feeling of isolation, impaired memory and concentration, head aches, sexual problems, fatigue.

Then came surprise number 2: The aim of torture.

We thought that the aim of torture was to obtain information, no, the main aim of torture is to break down, to destroy the identity, the personality.

Why?

Surprise number 3: The target group of governmental torture (torture performed with the knowledge of government), and that is performed in more than 70 countries of the world. The target group is what we call strong personalities: Union leaders, politicians, leaders of ethnic minorities, human right fighters, journalists, writers, student leaders. All people working for better conditions in their countries for more democratic conditions.

The torturers try to destroy them, try to break them down, and they use all sorts of torture measures. We know today that the psychological torture measures are by far the worst. We thought in the beginning that it was burning the cigarette, hanging, electrical torture were the worst. Today we know that being forced to see other persons being tortured, maybe your child, maybe your husband or wife. You are there and you can do nothing. You are helpless, and you can hear their screams. After being exposed to so much horror the torture victims are sent back to their milieu, and there you have a formally strong woman or man, now they cannot do what they used to do. They are full of anxiety, cannot eat properly, have nightmares, depressions etc. The family, the children suffer. The others in the society dare

not, do not risk to be exposed to the same. That is how dictatorship create depression, anxiety in more than 70 countries in the world. That is how they keep the society down.

Based of many years of medical and systematical research. We have shown this pattern. This is based on knowledge of torture victims, treated in Denmark coming from 48 countries. And we can conclude as simple doctors this social analysis: governmental torture is the most destructive weapon against democracy.

Then came surprise number 4, and I think you understand I consider it as a miracle. We can rehabilitate the victims - and so we should all over the world. And so we are doing.

In more than 50 countries courageous doctors are working in rehabilitation centres or with rehabilitation programmes.

Based again on our research, we now have a strong weapon in our hands: We can prove, we can diagnose governmental torture. Today governments can lie about torture - and so they do - but we can prove that they are lying.

We couldn't do that 5 to 6 years ago. But today we can with great amount of certainty state if the person has been exposed to governmental torture.

What can you do - you can do in fact a lot.

There is United Nations Voluntary Fund for Torture Victims. It exists. UN should give very high priority to this fund. Today it has a tiny budget, 1.6 mil. dollars, shameful compared to the need.

There exist today a global network of extremely courageous colleagues and health professors. They help torture victims. They need finance desperately. There should be money for these courageous doctors, health workers, who help victims of governmental torture with great danger of being victims themselves. Many amongst them are victims of torture.

They need finance.

They need protection - your protection.

In fact they need money from United Nations Voluntary Fund for Torture Victims. That will in the same time give them protection. Only few countries contribute to this fund: 42. It is very easy for you to do so - for your government to do so.

Then you will have shown disgust for the regimes, the dictatorships who use governmental torture, and that will have great effect. You thereby show in action, moral action, that you are against governmental torture.

You show you are against dictatorship, who use governmental torture.

This is also prevention.

And by this you can help democratization process in many countries. You can help these courageous doctors, psychologists - you protect them.

We can get rid of governmental torture before year 2000. If really you, the decisions makers want it, we could get rid of governmental torture before year 2000.

And you can do more. There are the United Nations Convention against Torture. 72 countries have ratified. Those who hasn't ratified should do it. Those who have ratified, it is not enough with beautiful words, implementation is lacking - and you know. In Article 10 is mentioned education and information regarding the prohibition against torture, should be included in the training of professional groups, medical personnel etc.

In Article 14 is mentioned that the victims of an act of torture should obtain redress and rehabilitation. It is not difficult to make implementation of these Article of the Convention. We have educational programmes, educational material, books, video films etc. both in English, Arabic, Russian, Albanic, Urdu. We want to help you to include this knowledge in the curriculum of health workers in your country. We have rehabilitation programmes. It is not difficult to implement them. They can be included in health

systems easily.

In the same time you will show disgust towards the regimes who are using governmental torture.

And again: Doing this, you show in practice you are against governmental torture.

It is in your hand to abolish governmental torture and thereby create democracy before year 2000.

Why not do it?

The French philosopher Albert Camus has said: Turn words to moral actions - then you will become a human being.

With this moral action the world will become more human.

0022-3018/91/1791-0004$03.00/0
THE JOURNAL OF NERVOUS AND MENTAL DISEASE
Vol. 179, No. 1
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Assessment and Treatment of Torture Victims:

A Critical Review

FEDERICO A. ALLODI, M.D., F.R.C.P.(C.)[1]

This paper presents the main issues in the diagnosis and treatment of psychiatric sequelae in torture victims. The concept of post traumatic stress disorder is used to organize literature on psychiatric casualties resulting from massive psychic trauma, *e.g.*, the Nazi Holocaust, the Vietnam and Israeli wars, and the current world epidemic of torture. Torture is a unique humanmade stressor resulting in category-specific diagnostic symptoms. Medical assessment can be complemented with photographs, x-rays, electroencephalograms, and sleep studies. Individual psychotherapy and group techniques focus on the issues of denial and trust, loss, survivor guilt, and reparation. Programs of psychological and social rehabilitation and treatment with benzodiazepines, tricyclic antidepressants, and other compounds are reviewed. Future research needs include the conceptualization of the trauma of torture and its sequelae in broader terms, the application of standardized measurements to facilitate international comparisons, and the testing of various approaches to intervention in an experimental design. An ethical physician must resist the pressures of totalitarian governments to assume neutrality in the presence of human rights violations affecting his/her patients.

— *J Nerv Ment Dis* 179:004–011, 1991

There are reportedly in the world today about 15 million refugees, many of whom have suffered violent persecution, including torture. After the original publication by Amnesty International (1977) of the physical and psychological sequelae of torture, a considerable number of reports and studies have appeared in the professional press of Europe, Australia, and North America, including Canada (Allodi and Cowgill, 1982; Allodi et al., 1985; Goldfeld et al., 1988; Rasmussen and Lunde, 1980; Reid and Strong, 1988). This paper is a review of methods of assessment of the physical and psychological sequelae that may follow torture and of the various treatment modalities that have been applied to the victims. Selected references are chosen from the literature on survivors of the Holocaust, the Vietnam War, and the more recent epidemic of torture as particular instances of posttraumatic stress disorder (PTSD). The information presented here refers as well to the experience and studies of the author and his colleagues in Toronto with refugees and torture victims. The paper will conclude with an outline of research possibilities and some ethical considerations.

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Assessment

The diagnostic approach to the victim of torture relies first on the traditional medical or psychiatric history. The task has been helped considerably by the publication of a list of symptoms or criteria for PTSD in DSM-III-R (American Psychiatric Association, 1987). This list includes four main groups of symptoms: reexperiencing of the trauma, hyperarousal, avoidance or denial (or psychic numbing), and miscellaneous symptoms, mostly of a depressive nature, such as social withdrawal and feelings of detachment and guilt. In this mixed group one could add such problems as impulsivity, substance abuse, and family difficulties, if they were absent before the experience of torture.

As the patient begins to tell the history and the narrative unfolds, the specific trauma of persecution, imprisonment, and torture appears with its unique characteristics. Torture, as a political tool of the state, is currently practiced in at least 60 countries around the world (Amnesty International, 1984a). The fundamental criteria in the definition of torture are whether it was a major trauma, not expected to occur to anyone in a lifetime; whether it was intentional; and whether the pain and suffering were avoidable, deliberate, and inflicted with the purpose of punishing or coercing the victim (Amnesty International, 1984b). The various methods of torture vary somewhat from country to country or even between a country's regions. They have been generally classified as physical

and psychological, using deprivation and sensory manipulation. Besides the experience of torture in their own persons, many victims, most commonly women, report the pain or suffering received indirectly from persecution of members of their own family, usually spouses or adult sons and daughters. In the case of a person who was detained and has "disappeared" at the hands of a government's security forces, the whole family experiences the consequences of this singular and pernicious trauma (Allodi, 1980; Allodi and Rousseau, 1989). Those aspects should be briefly noted and documented in the assessment of any torture as they are relevant to the genesis of symptoms, treatment, and medicolegal reporting. There is ample evidence that in adults and children the severity of trauma and other specific fears of persecution are significantly related to the level of posttraumatic symptomatology (Allodi, 1989; Allodi and Rojas, 1985; Rousseau et al., 1989; Rumbaut, 1990).

It is commonly reported that the physician undertaking a mental status examination of a victim will generally encounter a tendency to avoid or deny the details of history and its emotional concomitants. However, patient, empathic listening will often provoke a more or less controlled catharsis. Moderate cognitive deficits (poor recall and concentration) are also generally reported by the victim. The historical and observational data collected should provide the evidence for the diagnosis of PTSD. Nonetheless, it should be confirmed and refined with a number of psychological and physical investigations.

Symptom Checklists, Behavioral Scales, and Psychological Tests

The first publications on torture victims in the 1970s and 1980s merely described the observed somatoform, affective, or cognitive symptoms singly or in clusters. In subsequent clinical research, questionnaires, symptom list or specific criteria for diagnosing PTSD drawn from the DSM-III, and rating scales were used in both Europe and North America (Allodi and Rojas, 1985; Mollica and Lavelle, 1988; Rasmussen, 1990).

The impact of trauma, regardless of severity, is always mediated through personality factors. However, personality variables capable of predicting response to stress or trauma have proved elusive. From work with U.S. Army recruits in the early 1940s (Grinker and Spiegel, 1945) to reports on psychiatric casualties from the Vietnam and Israeli wars (Bourne, 1969; Merbaum and Hefez, 1976), most studies have been retrospective and the various approaches to personality assessment have been able to discriminate only the most extreme cases with previous behavioral or neurotic problems. In the field of torture there are hardly any studies to clarify this uncertainty. Low scores in the Authoritarianism-Dogmatism Scale of Rokeach (Schultze, 1962) predicts a better outcome after the trauma of torture for Latin American refugees in Toronto (Allodi and Rojas, 1985, 1991).

The outcome of trauma is also related to environmental variables. Those often mentioned are the general social context, including safety in a different place or country, and the specific measures of personal support to the victims (Allodi and Rojas, 1988). In refugees, measurements of social isolation and support (marital status, presence of relatives, close friends) are related to symptomatology (Beiser, 1988; Lin et al., 1982; Rumbaut, 1991). The frequency of social isolation and maladaptation among torture victims, as part of an exile population, is expectedly high. However, aside from some family, job, and police problems, there is no clear evidence that in this regard torture victims are very different from other exiles who suffered fear and persecution but not torture. On the other hand, victims were much more psychologically and socially stressed than immigrant groups from the same regions of the world without the experience of persecution or torture (Allodi and Rojas, 1985).

Children, generally, do not verbally express the psychological disorder consequent to the experience of being direct victims of brutal treatment or torture or, more frequently, witnessing violence, torture, or death of grown-ups, relatives, or parents. It may take many months of therapy before children reveal what they experienced or witnessed. Family interviews, play therapy, drawings, and other projective tests, have been used frequently in their investigation and treatment. Blind analysis of drawings and the Thematic Apperception Test from samples of refugee children whose parents had experienced persecution and torture showed results consistent with questionnaire findings and clinical observations (Allodi and Rojas, 1988; Rousseau et al., 1989). The Rutter scales administered by parents and teachers (Rutter et al., 1970) have been used by Krupinski and collaborators in Australia with Vietnamese children and by our group in Toronto (Allodi, 1989; Krupinski, 1986). These scales have also been used in children of torture victims and of parents who have "disappeared" in Central America (Allodi and Rousseau, 1989; Allodi et al., 1989). Although they are not to be taken for diagnostic instruments, when used in large populations these scales have great value as screening tools and for epidemiological reporting.

Women are often reported to have suffered sexual abuse, including rape, as victims of torture (Foster et al., 1987; Rasmussen, 1990). A recent study confirmed that those sexually abused or raped showed sexual anxiety and avoidance even years after the traumatic experience (Allodi and Stiasny, 1990). In individual

cases, tactful inquiries should be made and as a group female victims should be studied with scales specifically measuring sexual trauma and dysfunction.

Medical Assessment

When exposing the victim to the clinical environment, medical examination, or therapeutic techniques, care must be taken to avoid triggering reactions of fear, anxiety, or painful associations with past experience of imprisonment, interrogation, and torture. Physicians and nurses should bear in mind that, in some countries, members of their professions have collaborated in the process of torture (Allodi and Cowgill, 1982; Stover and Nightingale, 1985). Injections or the sight of a medical tray or electrical equipment may indeed bring very painful memories. In my own practice, in the case of a woman with a bleeding peptic ulcer, even the seemingly nonthreatening procedure of hospital admission brought a panic reaction and flight from the hospital.

The physical consequences of trauma should first be investigated with a routine medical examination in all cases. Brief description and measurement of all scars should be made. Some scars are specific to trauma and, in fact, almost pathognomonic, such as scars from cigarette burns on the dorsum of hands and feet or on the chest, scars from electrical burns, handcuff scars on the wrists, roping scars on arms and legs, or multiple scars on back or shin areas. One case involved the victim's being hung by the thumbs, resulting in bilateral amputation of these digits. Other scars are not specific to torture, such as those from bullets and bayonet wounds or from cuts and lacerations. Damage to teeth and ear drums is common in torture victims. Tooth and gum damage results both from neglect of hygiene in imprisoned people under severe conditions of deprivation and from direct blows to the mouth. X-rays have also proven helpful in documenting single fractures and multiple fractures of ribs and fingers (Cathcart et al., 1979; Domovitch et al., 1984; Rasmussen, 1990).

Photography has been used in medical and human rights publications as a means of illustrating reports of torture and abuse. It has proven of great value in cases of victims claiming refugee status in Canada, and in the future a photographic record may be very useful to victims seeking compensation in courts of justice. Electroencephalograms and special x-ray studies have been useful in investigating head injuries with consequent brain atrophy attributable to torture (Jensen et al., 1982). Sleep studies were conducted in 12 young male Central American torture victims in Toronto (Hefez et al., 1985); these studies revealed prolonged latency REM sleep, reduced REM sleep, reduced sleep efficiency, and high frequency of nocturnal myoclonia. These results are compatible with other reports on the alteration of sleep/dream cycle basic to PTSD (Kramer and Kinney, 1988; Lavie et al., 1979). Chromosomal studies have been conducted successfully to identify children and grandchildren who were kidnapped and reared separately from their biological parents or grandparents in Argentina during the violent repression of 1976–1983, the so called "dirty war" (Di Lonardo et al., 1984). Other techniques of investigating sequelae of torture still in process of development are skin biopsy and serum and urine analysis. Skin biopsy can differentiate scars caused by electrical shocks from scars caused by other types of burns (Karlsmark et al., 1984). In acute cases of physical trauma under torture, levels of serum creatinine kinase and myoglobin in urine have been used as an indicator of traumatic muscle destruction not specific to torture.

It is apparent that the medical investigation of torture victims in North America and Europe, where access to medical care should be much easier, is not conducted as frequently or as adequately as it should be and that many sequelae escape medical attention and treatment (Goldfeld et al., 1988). The multiplicity of problems encountered by refugees all over the world and the priority that they must give to other needs, such as safety, housing, and employment, suggest that this neglect of medical investigation and treatment of the sequelae of torture is probably widespread.

Treatment

The literature on Jewish survivors of the Nazi Holocaust and on Vietnam veterans as persons with PTSD provides much insight and technical guidance for the psychological treatment of torture victims. In the Holocaust literature, the reported individual, group, and family techniques have, largely, a psychodynamic or psychoanalytical orientation (Danieli, 1988; Kestenberg, 1980; Krell, 1982). In the case of the Vietnam veterans, individual, group, and family therapies have been more directed toward cognitive and behavioral adjustment (Egendorf, 1978; Lifton, 1978; Williams and Williams, 1985). Psychotherapy with torture victims has followed mostly a cognitive and supportive approach in exiled populations (Mollica and Lavelle, 1988; Somnier and Genefke, 1986) and in the countries of origin (Kordon and Edelman, 1986; Lira et al., 1984). Group techniques also have been reported both in countries of origin (Cienfuegos and Monelli, 1983; Lira et al., 1984) and in places of exile (Fishman and Ross, 1990).

The following issues are most often reported as significant in psychotherapy with victims of torture: the establishment of trust or alliance between patient and

therapist; grief reaction and mourning for the loss of loved persons; in the case of refugees, the loss of country, community, and culture; denial and avoidance both on the part of victim and therapist; countertransference and overidentification reactions from therapists culturally and ideologically distant or too close to their patients; survivor guilt and the survivor's mission or the attempt to repair the damage done, individually or within a social group. What is so unique in torture victims, compared with other cases of PTSD, is the sense of personal humiliation and shame, the mistrust of friends, neighbors, authorities, or institutions, and, at times, the confusion of values and of self at a most intimate level. Those aftereffects are related to the circumstances and the very objectives of the torture: to regress, humiliate, and devastate the self-esteem of the victims and to confuse their values and philosophy of life, using techniques that take advantage of the most basic needs of any human being under conditions of total dependence. Torture is also unique in that it requires a personal, often close and repeated contact between two individuals; at times this relationship, by design, can be contrived in an ambiguous manner through special techniques, such as the "good" and the "bad" torturers, and through methodical attempts to brainwash or "rehabilitate" the victims. The victim's resistance or compliance with the pressures and wishes of the agents and his/her "choice" between two equally destructive alternatives can give origin to psychologically crippling reactions. It is after this type of torture that the vicissitudes of self-identity appear most pronounced. Although some case reports have been written in the professional literature of other forms of PTSD, (*e.g.*, reeducation camps in China [Lifton, 1961]), in the case of torture victims, except for a few literary publications or anecdotal reports, very little has been published. This theme, in part, is an aspect of the study of the agent or torturer, which is outside the scope of this paper.

In the process of therapy with torture victims, the concept of dynamic stages is useful. Working with Holocaust survivors, Fogelman (1988) considered the stages of denial and avoidance, acceptance with consequent grief reaction, and integration valid at individual, group, or community levels. This last stage is characterized by attempts to repair the damage done in terms of inner self and social life. It has also been argued that the role of the physician, psychiatrist, or therapist in individual therapy or in support groups should be adapted to the expectations and assumptions of the patient's culture and circumstances. Often it is more supportive and integrated to a complex network than in the Western tradition of the individual doctor-patient relationship. Moreover, in countries in which torture is condoned or conducted by governmental agencies and its very existence denied, the options for treatment are limited and risk the patient's and therapist's safety.

Community Support Programs

The losses and stresses of the victims of violent persecution and torture are multiple, both of a psychological and social nature, in countries of origin and in countries of exile. Consequently, their psychological well-being is dependent on the availability of social support (family and friends) and security. The readaptation of the victims of the Holocaust has provided pioneering examples of socially integrated care and support (Klein, 1972; Harel et al., 1988). In Latin America, there are numerous instances of this approach with torture victims. In Chile, physicians, psychologists, lawyers, and social workers, sponsored by religious groups, have been integrated into such programs (Lira et al., 1984). In Toronto, the Canadian Centre for Victims of Torture provides similar help, under very different circumstances (Allodi and Simalchik, 1991). Other groups exist in the United States, the United Kingdom, Denmark, the Netherlands, Belgium, France, Germany, South Africa, the Philippines, Central America, and Argentina and the rest of Latin America, providing services for refugees and victims of violent state oppression with either government or community support or both (Protacio-Marcelino, 1989; Reid and Strong, 1987). Unfortunately, none of the techniques and methods of intervention, psychological treatment, or rehabilitation referred to above has been tested for effectiveness in an experimental design. To date, all reports are descriptive, anecdotal, or impressionistic.

Medical Methods of Treatment

The physical sequelae of torture are to be treated, whenever indicated, as medical or surgical problems regardless of origin. Nonetheless, the medical team, in liaison with the patient's support system and, if required, with a physician experienced in the treatment of victims of torture, should be sensitive to and capable of dealing with the psychological concomitants of such lesions.

A number of psychophysiological investigations of PTSD, mostly conducted with Vietnam veterans, provide the basis for a rational biological treatment of the psychological symptoms of victims. These studies indicate a high level of sympathetic nervous system activity and hyperarousal. Under controlled laboratory conditions, PTSD patients have been reported to have higher baseline heart rate, systolic blood pressure, and forehead electromyographic responses and higher psychophysiological reactivity to audiotapes with combat

noises than control nonveterans (Blanchard et al., 1982). PTSD patients have also shown higher urinary norepinephrine/cortisol ratios (Mason et al., 1986) and the unique abnormalities of sleep and dreaming cycle already mentioned (Kramer and Kinney, 1988). Thus, neurophysiologically, PTSD can be categorized as a state of chronic sympathetic hyperarousal; consequently, psychopharmacological treatment has been aimed at dampening the hyperarousal associated with PTSD. However, with the exception of the sleep studies conducted by Hefez et al. (1985), none of this type of psychophysiological research has been conducted with torture victims.

The drugs most often reported useful in the treatment of PTSD are benzodiazepines and tricyclic antidepressants (Friedman, 1988). The same benzodiazepines are very helpful in settling the prevalent symptoms of hyperarousal and reexperiencing, namely, insomnia, startle responses, hyperalertness, impulsiveness, nightmares, and intrusive thoughts. Diazepam is the most widely used compound but, in patients with nocturnal myoclonia, startle responses, and motor agitation, clonazepam and nitrazepam appear to have an added value. Patients with a depressive component have responded favorably to low doses of imipramine or desipramine. More recently, propranolol and carbamazepine have been used in patients with manifestations of physiological hyperarousal and reexperiencing (Schwartz, 1990). Antipsychotics have not been used specifically in PTSD (Schwartz, 1990) but, as in any other condition with psychotic presentation (*i.e.*, reactive paranoid sysmptoms) or with overwhelming anger or impulsivity, they can be given with symptomatic relief. Clonidine, a central action antihypertensive agent, is reported to alleviate the symptoms of hyperarousal and to reduce the frequency of psychophysiological manifestations of reexperiencing. Lithium carbonate in low doses has been credited with good results in the treatment of mood changes, irritability, and explosiveness (Friedman, 1988; Schwartz, 1990 and Van der Kolk, 1983). However, no controlled studies have been published on victims of torture. This psychopharmacological treatment remains empirical.

Implications for Research

A number of observations can be made on the available research:

The theoretical and conceptual framework of studying torture victims must accommodate the complexity of this phenomenon. A number of models have been used in the study of refugees and torture victims (Beiser, 1990; Rumbaut, 1991). The basic scheme is derived from public health and epidemiology: a trauma or stress (the germ), acting on an individual of certain personal characteristics (the host) in a particular social context (the environment) may occasion a number of symptoms of psychological distress and social maladjustment (the disease). In operational terms, the task is to measure the most significant variables under study (*i.e.*, trauma, social support, and psychosocial impairment) and to exercise control on other independent variables.

PTSD, as a model for the study of victims of torture, political violence, and other abuse of state power, has been criticized as narrow insofar as it reduces what is often a complex politicohistorical problem to the individual psychological level (Punamaki, 1989). Values—the spirit of commitment to an ideology or integration into a political program—are significant factors in the outcome and coping of torture victims (Allodi and Rojas, 1988) and should be included in a comprehensive research design. This, of course, does not reduce the value of PTSD as a specific set of criteria that can only add accuracy and reliability to the clinical diagnosis.

Migration, refugee status, economic hardship, death in the family, divorce, and other events can appear in the life of a torture victim and may or may not bear a relationship to the trauma or persecution, although ultimately these factors probably will have a cumulative effect on the final state of health or adaptation of the victim. There is, no doubt, an element of circularity in this relationship. Traumatized refugees are frequently depressed and, therefore, unable to cope with family or other problems unrelated to the original trauma, but these problems become by themselves a new source of strain and depression. The precise role of those life events and their relationship to the process of persecution and traumatization should be elucidated with appropriate design and methodology.

Until now, results of studies on the various groups of torture victims have not been easily comparable. To facilitate comparison between the different studies and across national boundaries, standardized measurements, in the form of scales, symptom checklists, questionnaires, or lists of specific diagnostic criteria should be used. When using brief screening scales in large populations, a small sample of this group should be interviewed clinically for diagnostic validation of those scales within that population. In the same manner, the traumatic event of torture or any other violation of human rights, whether physical, psychological, or symbolic threats or actual traumas to the integrity or welfare of the person, his/her family, or community, should be precisely described and, if possible, measured in a standardized manner.

Proposals have been made to create out of the PTSD category a specific "torture syndrome," as with concentration camp survivors or rape victims, and even

to recognize some of the PTSD criteria or clusters as subdivisions of PTSD (Horowitz, 1976; Loughfrey et al., 1988). It is possible to postulate a relationship between type and severity of trauma, symptom cluster, support network, and prognosis, but more research is needed before valid, discrete, and specific nosological entities or subcategories of PTSD are created. Remarkably little has been written on the somatoform, conversion, or dissociative symptoms of torture victims or on the psychotic breakdowns reactive to this type of major trauma. So far, the torture syndrome remains a cluster of symptoms, sometimes accompanied by some more or less specific physical and psychological sequelae, subsequent to the unique humanmade stressor of torture and included under the general nosological category of PTSD.

Specific treatments and approaches to intervention should be tested in an experimental design. In spite of the inherent difficulties with research techniques, consenting patients, and ethical requirements, this standard should be pursued, as it will permit the development of truly effective treatment techniques.

Epidemiological surveys can bring knowledge of great use to clinical practice, public policy planners, and administrators. Ideally, community or total prevalence samples should be studied with appropriate methodology. At least two studies of this kind have been conducted with Southeast Asian refugees in North America and one specifically with torture victims (Allodi and Rojas, 1985; Beiser, 1990; Rumbaut, 1991). Other reports refer to populations in treatment and therefore subject to the vagaries and limitations of the pathway and access to treatment. Their conclusions are that refugees, including torture victims, are, indeed, traumatized people and have higher indices of psychological distress and depression than control populations for some time after arrival in the new land. Some risk and protective factors capable of predicting the outcome of torture have been identified. Like other immigrants, refugees are not a homogeneous population. The main groups at risk are women, children, the elderly (Carlin, 1990), people from differently persecuted minority cultures or groups (Rumbaut, 1991) the unmarried and isolated (Beiser, 1988) and the survivors of torture (Allodi and Rojas, 1985). Individuals from rural or preindustrial backgrounds, the industrially unskilled, and the uneducated or illiterate would be at risk when displaced from their local communities. These groups will carry within themselves symptomatology, social needs, and at times demands for services to their new community or country. Studies of torture survivors, their risk factors, and needs will permit the planning and organization of services wherever the survivors of persecution may land.

Finally, psychoanalytical investigation of survivors should continue, as it is uniquely capable of explaining the irrational nature of humans at a direct psychic level and of integrating and giving significance to the descriptive and measurement data. Perhaps psychoanalysis will provide hypotheses to answer some deeply troubling questions on the relationship between victim and tormentor or on the psychology of the passive and neutral bystander.

Ethical Considerations

Torture has been an early companion of mankind (Ruthven, 1978). The difference between historical and present-day torture is that modern torture is illegal under both national legislation and international agreements, it is secret, not public, and it generally takes place within a total context of political violence and repression. The psychiatrist, like any other professional trapped in such an atmosphere, may not be able to escape the dilemma of responding to the abusive political means of the government. If he/she attends to the needs of a patient victim, his/her own safety or life may be in danger. Moreover, it has been argued that the commitment of the health professional to his/her patients may also mean commitment to their political goals (Punamaki, 1989). This attitude, however controversial, ultimately would be deemed ethically correct in the light of past and concrete abuses committed by various states. If the physician does not respond to the need of a victim, his/her silence or neutrality as a professional is all the government might be seeking to further its own political goals. During the Nazi atrocities, it was the belief that only a few doctors participated actively in the genocide and mass killing of the extermination camps (Aziz, 1976). However, further investigations have shown that the bulk of German psychiatrists, that is, those working in state-supported academic institutions and mental hospitals, were compromised in the medical selection and killing of the mentally ill, the retarded, the invalid, and Jews in the concentration camps. It will be difficult for the current medical profession to absorb into our consciousness that "the killing program was led by doctors from the beginning to the end" (Lifton, 1986, p. 166). For those who said "yes," this yes statement was the first step into a hypnoidal or momentary trance state of authoritarian submission (Krystal, 1984). In common with other victims of catastrophic psychic trauma, these doctors suffered a narrowing of conscience with repression of the emotional experience of the events which they were witnessing. In the future, for the physician faced with the need to treat a torture victim, the answers to those problems may or may not present themselves as ethically clear. In any case, the choice will always be a matter of personal conscience, and

the development of a professional and personal conscience resistant to massive psychic assault is a lifetime task.

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May 13, 1988, Volume 259
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The Physical and Psychological Sequelae of Torture

Symptomatology and Diagnosis

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We present a review of the international literature on the medical and psychological effects of torture. Our review reveals that certain tortures and their physical and emotional sequelae are more prevalent than previously appreciated. They include the common occurrence of sexual violence during the torture of women and female adolescents and the high frequency of head injury and associated neuropsychiatric consequences. We recommend the use of standardized diagnostic criteria in the evaluation of patients who have survived torture; this will facilitate patient care and the documentation of human rights violations.

(*JAMA* 1988;259:2725-2729)

OF THE more than 11 million displaced persons throughout the world, it is estimated that greater than 1 million refugees have been resettled in the United States since 1975.[1,2] Many of these individuals have experienced war trauma, including torture, and are fleeing from countries where torture is a widespread practice. Torture, which has been documented to occur in 98 countries worldwide, has been compared to an epidemic.[3] Therefore, it is with increasing frequency that health care providers in countries of asylum such as the United States are confronting patients who have survived torture.

The documentation of torture is often difficult. Not only is it often actively concealed by its perpetrators, modern torture is characterized by a technological sophistication that can leave few physical traces. Nonetheless, groups such as Amnesty International (AI) have provided convincing proof of the occurrence of torture in numerous countries. Such reports are based on multiple lines of corroborating evidence that may include testimony of victims, witnesses, former torturers, local human rights groups, investigative missions, and medical examination findings.[3]

Health care providers have in the past been unresponsive to the medical and psychiatric problems that may arise from situations of human brutality.[4] The tendency for individuals, including health professionals, to withdraw from survivors of violence has been well documented in practitioners caring for concentration camp survivors,[4] Cambodian survivors of the Khmer Rouge regime,[5] Vietnam veterans,[6] and Chilean survivors of torture.[7] The medical and psychiatric interviewer is often emotionally unprepared to listen to the horrifying experiences of the survivor of torture.[4,5] Patients themselves frequently will not reveal the torture experience to the physician[6-8]; they may fear reprisals, be overwhelmed by humiliation, be reluctant to retrieve painful memories, and fear stigmatization to themselves and their families. Therefore, familiarity with the injuries caused by torture, sensitivity to the psychological and social issues confronting the tortured patient, and awareness of the personal difficulty health practitioners may have in caring for this group of patients are all necessary to provide optimal care.

Despite the recognition that torture may cause serious physical and emotional impairments, information about the medical effects of torture is not readily available. This information is limited for several reasons. First, there have been few systematic investigations of survivors of torture. In addition, much of the information that has been published is relatively inaccessible because it is spread throughout foreign language journals or is privately circulated by clinics to avoid the danger of public attention to both practitioner and patient.

In this article, we review published and privately circulated international reports on the physical and psychological sequelae of torture. The goals of this review are threefold: (1) to make this information and its sources readily accessible to the medical community; (2) to make available the current experience of medical providers actively engaged in treating survivors of torture; (3) to determine effective diagnostic approaches to clinically significant symptoms in this expanding group of patients.

THE PHYSICAL SEQUELAE OF TORTURE

Between 1979 and 1985, six patient series reported the physical examination findings and symptoms in a total of 319 survivors of torture who had sought refuge in Canada, Denmark, and Hol-

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Table 1.—Types of Torture Reported by Torture Survivors in Six Investigations, 1979 to 1985[4-9]

Torture Types	No. of Cases (N=319)
Beating, kicking, striking with objects (to torso and/or genitalia and/or head)	410*
Threats, humiliation	246
Application of electricity (to torso, genitalia, mouth) with pointed electrodes, cattle prods, or shock baton	149
Blindfolding	105
Mock execution	89
Made to witness others being tortured	72
Submarino—submersion of head in water (often filthy or polluted with excreta) with near drowning	54
Isolation (for >48 h)	50
Starvation (for >48 h)	50
Sleep deprivation	49
La bandera—suspension from a rod by hands and feet	45
Rape—mutilation of genitalia, insertion of foreign bodies into vagina or rectum	44
Burning—application of cigarettes, electrically heated rods, hot oil, quicklime, corrosive acid	42
Falanga—beating the soles of the feet with rods	31
Rope bondage—tightening of ropes over hours	30
Telephono—striking of blows at the victim's ears	23
Forced standing (for >48 h)	19
Throwing of urine or feces at victim	16
Medicine administration (nontherapeutic)	12
Traction alopecia—lifting by hair	8
Needles under toenails or fingernails	8
Deprivation of water—providing only filthy, salty, or soapy water	5
Forced extraction of teeth	5
Prevention of urination and defecation	4
Deprivation of medical care	4

*An individual patient may have sustained blows to three areas.

land.[9-14] Five of these studies used semistructured questionnaires that were based on an interview schedule developed by the Danish medical group of AI.[9,10,12-14] These questionnaires are not described in detail in any of the studies, but reportedly focus on the description of torture and on the health status of the patient before and after torture. The sixth study presented case histories of six patients.[11] The length of time between torture and evaluation was not consistently noted in the studies. General physical examinations and simple laboratory tests were done and roentgenograms were obtained in all six studies when possible. The majority of interviews and examinations were conducted in the country of refuge. However, in the Danish study by Wallach and Rasmussen,[13] 18 Chilean nationals were examined in their own country. In the other Danish study by Rasmussen and Lunde,[10] of 135 subjects evaluated, 35 from Greece, 32 from Spain, and five from Northern Ireland were all examined in their own country and 13 from Argentina were examined in Rome.[10]

The majority of patients evaluated in the six studies were Chilean, comprising 191 of the total of 319 cases. Other nations represented in the studies were Greece, Northern Ireland, Uruguay, South Africa, El Salvador, Spain, Argentina, Ethiopia, Algeria, Bolivia, Morocco, Bangladesh, and Romania. The majority of interviews were conducted by physicians, although consistent documentation of where, when, and by whom the examinations were conducted was not provided.

Table 1 summarizes the tortures to which the 319 individuals evaluated in the six patient series were subjected. The most common physical symptoms reported included headache, impaired hearing, gastrointestinal distress, and joint pain. The most common physical findings were scars on the skin and bone dislocations and fractures. No medical diagnoses were reported in any of these studies.

In the patient series cited previously, physical symptoms and findings were frequently correlated with specific tortures. However, detailed medical historical data and descriptions of physical findings necessary to establish such associations were not consistently presented. For example, in one of the Canadian studies,[14] the authors note that ten of 12 patients who complained of hearing loss had been subjected to *telephono*, a torture consisting of beating the ears with a hard object. In this same study, however, there is no documentation of physical findings suggestive of head trauma or of audiometric measurements that could establish the diagnosis of hearing loss secondary to *telephono*. In another example, Rasmussen and Lunde[10] report that 32% of 135 patients evaluated suffered from gastrointestinal complaints and 22% suffered from cardiovascular complaints. Yet, they present no historical descriptive data or physical findings that could help decipher the etiology of these general symptoms and their connection to torture.

Other human rights and case reports provide more detailed descriptions of physical findings and symptoms after torture. Furthermore, they suggest that certain tortures and their medical sequelae are more prevalent than appreciated in the patient series cited previously. Danielsen and Aalund[15] describe certain types of electrical and burning tortures that may produce distinctive scarring patterns in the skin. *Picana*, a type of electrical torture in which an electrically charged needle is applied to areas of heightened sensitivity such as nipples, genitals, eyes, tongue, and teeth, typically produces 1- to 2-mm reddish macular scars in clusters.[15,16] Characteristic scars have also been described resulting from burning with cigarettes,[15,16] molten rubber,[17] corrosive liquids,[18] and tight ropes[15,16,19] and after beating with blunt instruments.[15] A diagnostically promising finding has been the description of calcium salt deposition that may be found in a punch biopsy specimen of the dermis beneath an area that has been shocked by an electrical cathode during torture.[20-22]

Skeletal and soft-tissue abnormalities secondary to beatings and suspension during torture are frequently described. Occult fractures, lumbosacral spine injuries,[9,23] dislocation of vertebrae, and paraplegia[24] have been reported after prisoners had been beaten or hung by one extremity during torture. Other reports detail massive swelling that causes vascular compromise of the lower legs after *falanga*, a torture method consisting of blows to the sole of the foot.[25-27] Additional reported effects of *falanga* include aseptic necrosis of a toe,[28] necrotic ulcers of the leg (L. Danielsen, MD, unpublished data, 1985), chronic venous incompetence of the legs,[26,27] and pain on walking.[27]

Although not emphasized in the patient series reviewed, numerous observations from health practitioners worldwide reveal that sexual abuse and rape figure prominently in the torture of women.[17,24,29-39] For example, in investigations of Cambodian, Laotian, and Vietnamese refugees, histories of rape and sexual abuse during torture and detention are widespread.[30-32] In Uganda, group rape of female detainees by military guards is reported to be frequent and resistance to rape to result in shooting or stabbing of the victim.[17] Similarly, the sexual abuse of female prisoners has been described in Chile,[33,34] El Salvador,[35,36] Poland,[24] and Nicaragua.[37]

Neither youth nor pregnancy serve as a deterrent to torture. A recent Helsinki Watch Committee report from the Ukraine describes 15 cases of rape of female children younger than 14 years old whose parents were members of ethnic or religious minorities (E. Brantley, JD, oral communication, 1986). Sexual abuse and detention of female children has also been documented in El Salvador.[36] Kicking pregnant women in the abdomen to precipitate spontaneous abortion during torture is described in Uganda[17]; in Chile, beating and electrical torture of pregnant women is reported.[34] The mutilation of female genitalia, pregnancy, venereal disease, infertility, miscarriage, and serious social and psychological impairments are reported to be common consequences of the torture of women.[29,33,38-40]

Table 2.—The Percent Distribution of Psychiatric Symptoms of Torture Survivors by Clinical Survey, 1979 to 1985

	Allodi and Cowgill,[43] 1982 (N=42)	Rasmussen and Lunde,[10] 1980; Lunde,[33] 1982 (N=135)	Domovitch et al,[14] 1984* (N=98)	19 Case Studies†
Cognitive symptoms				
Confusion/disorientation	5 (12%)	...	...	1 (5%)
Memory disturbance	12 (29%)	61 (45%)	37 (38%)	6 (32%)
Impaired reading	...	...	...	2 (11%)
Poor concentration	13 (32%)	61 (45%)	46 (60%)	8 (42%)
Psychological symptoms				
Anxiety	36 (88%)	32 (24%)	87 (94%)	12 (63%)
Depression	29 (71%)	26 (19%)	57 (66%)	13 (68%)
Irritability/aggressiveness	...	40 (30%)	53 (66%)	2 (11%)
Emotional lability	...	...	21 (30%)	12 (63%)
Self-isolation/ social withdrawal	...	13 (10%)	53 (63%)	5 (26%)
Neurovegetative symptoms				
Lack of energy	26 (63%)	19 (14%)	32 (41%)	7 (26%)
Insomnia	28 (68%)	...	81 (83%)	16 (84%)
Nightmares	14 (34%)	29 (20%)	66 (78%)	16 (84%)
Sexual dysfunction	5 (12%)	...	27 (57%)	...

*The number of cases examined for each symptom ranged from 53 to 98.
†Case studies from Amnesty International Human Rights Missions to Uganda, Greece, Chile, Iraq, Egypt, and Northern Ireland.

Sexual abuse of male detainees appears to be less prevalent; however, in two reports from Denmark, sexual dysfunction (decreased libido and impotence) and testicular atrophy are described as sequelae of genital torture of men.[41,42] Application of electricity to, and beating and pulling of, the penis and testicles as well as testicular crushing with cattle gelding instruments have all been described in Uganda.[17] In Chile, a former detainee interviewed by an American Committee for Human Rights mission described genital torture of male inmates (J. Fine, MD, oral communication, 1986). Repeated rape of a male torture victim in Latin America is described by Allodi and Cowgill.[43]

THE PSYCHOLOGICAL SEQUELAE OF TORTURE

Table 2 summarizes the psychological symptoms associated with the torture experiences documented in three studies by Danish and Canadian groups that evaluated a total of 275 survivors of torture.[10,14,33,43] The Danish study by Lunde[33] reports the psychological findings in the group of patients studied by Rasmussen and Lunde.[10] This study and the Canadian study by Domovitch et al[14] assessed the psychological symptoms associated with the torture experience by use of semistructured interview schedules that were not described in detail in their reports. The 41 patients that compose the Canadian study by Allodi and Cowgill[43] were from three Latin American countries. They were examined in Canada from a few months to several years after their torture experience by the same Spanish-speaking psychiatrist using a semistructured interview format.[43] In addition, we reviewed 19 case reports from AI human rights missions to Uganda, Greece, Chile, Egypt, Iraq, and Northern Ireland. These findings are also summarized in Table 2.[17,44,48] One hundred ninety-seven of the 275 survivors of torture evaluated for psychological symptoms were from Latin America. All cases presented in Table 2, except for AI case reports, were evaluated in countries of asylum. The time interval between torture and evaluation was not generally noted. The most common psychological symptoms reported included insomnia and nightmares, memory loss, and poor concentration. The psychiatric diagnoses of these patients were not indicated in any of the reports.

In two of the studies summarized in Table 2, authors state that they have found evidence of a psychological syndrome specific to the survivor of torture.[10,43] Allodi and Cowgill[43] state, "All patients suffered from a homogeneous disorder characterized by extreme anxiety, insomnia and nightmares . . . somatic symptoms of anxiety, phobias, suspiciousness and fearfulness." They felt this symptom complex constituted a torture syndrome. Rasmussen and Lunde,[10] in their 1980 report, suggested that a psychological syndrome secondary to head trauma may exist. They also observed that 14% of their study group of 135 patients had a "mental disturbance." The diagnostic criteria on which their conclusions were based were not described. In a 1984 follow-up study of 22 of the original 135 subjects who had been studied by Rasmussen and Lunde, Abildgaard et al[49] indicated that eight (39%) of 22 had a "chronic organic psychosyndrome," also called by them, "post-traumatic cerebral syndrome." Survivors of torture qualified as having this disorder if they had three or more of the following symptoms: impaired memory, headaches, intolerance to alcohol, and sleep, marital, or emotional disturbances.[49]

In each of the studies presented in Table 2, a high percentage of patients were beaten or kicked in the head. It is not known whether head trauma accounted for any of the symptoms described previously, because none of the studies reported the results of neuropsychological testing, neurological examinations, or related laboratory studies (eg, electroencephalography or computed tomography), which might establish this link. The relationship between head injury and mental disturbance such as memory loss, headache, and impaired concentration has been well documented[50,51] and may account for the occurrence of similar cognitive symptoms in survivors of torture. The 1982 documentation by computed tomography of cerebral atrophy in five young men who had been tortured two to six years before neurological investigation[52,53] also suggests a possible organic basis for psychological symptoms in these patients.

COMMENT

Sexual Violence and Head Injury During Torture and Detention

In gathering and summarizing the research and clinical experiences of health practitioners and clinics working with survivors of torture, it is apparent that certain tortures and their physical and

emotional impact are more significant than previously appreciated. These tortures include sexual violence among tortured women and female adolescents and head injury. Although the true prevalence of sexual violence and head injury in this patient population is as yet unknown, it is clear from the material reviewed that they may be the cause of significant emotional and physical injury among survivors of torture. Therefore, in our current state of knowledge about survivors of torture such emphasis is important to orient health care providers to symptom complexes they might anticipate. Additionally, although a torture syndrome has been claimed by some investigators to occur after torture, lack of reference to standardized psychiatric diagnostic criteria, as well as incomplete descriptions of the psychological meaning and impact to the victim of torture, gives little clinical usefulness and meaning to this term.

Sexual violence is often associated with the torture and detention of women and female adolescents. The problem of security and protection against sexual violation and rape is therefore essential to the well-being of those in refugee camps, in areas devastated by war, and in countries where torture is practiced. Furthermore, the true magnitude of this problem is likely to be underappreciated because women who have been sexually violated during torture frequently hide their experience from physicians and families to avoid the shame and stigma of the experience.[54] Despite the complex and sensitive nature of this problem, health care providers must be aware of the likelihood of its occurrence and anticipate the potential physical and emotional injury that may result from sexual violence.

Similarly, physicians should be alerted to the frequent occurrence of head trauma among this patient population. Such injuries are frequently associated with neuropsychological deficits and impairments in social functioning.[50,51] Despite the clear documentation of head injury in survivors of torture (Table 1), there has been no systematic evaluation of the neurological and/or neuropsychiatric deficits that may be related to head injury in these patients. Therefore, psychological symptoms displayed by survivors of torture may be secondary to organic central nervous system dysfunction rather than to the psychological effects of the torture experience.

Improving Medical Evaluations of Survivors of Torture

It is apparent from the studies reviewed that the medical and psychiatric evaluation of survivors of torture presents unique problems to the clinician. Difficulties that may be encountered include assessment of the accuracy of the torture survivor's trauma story (especially if physical findings are subtle or absent), cultural and linguistic barriers to clinical evaluation, and the emotional resistance by practitioner and patient to discuss the torture event. In addition, special problems of confidentiality and trust are raised in the care of survivors of torture. Care must be taken not to stigmatize these individuals further by labeling them prematurely with syndromes that may then become sensationalized. Assignment of medical and psychiatric diagnoses based on supportive historical data and physical findings could help ameliorate some of these difficulties by establishing links between particular tortures and their medical and psychological consequences.

Medical diagnoses were not reported in any of the investigations or case studies reviewed herein. Such information could help orient physicians to disorders they can anticipate in their evaluation and treatment of survivors of torture and help them uncover even subtle physical findings. It could also improve communication about the medical effects of torture among health care professionals. Use of adequate diagnostic criteria in assigning psychiatric diagnoses is also important, because as numerous epidemiologic studies have documented, the presence of emotional symptoms is not identical to a diagnosis of a mental disorder. For example, a survivor of torture may feel sad and hopeless, but may not be suffering from a major depression.

In the studies reviewed in this article, many of the symptoms associated with the diagnosis of posttraumatic stress disorder (eg, recurrent thoughts or memories of the traumatic event, hyperalertness, reliving the traumatic event, sleep disturbance, etc[55]), as well as major affective disorder (eg, dysphoric mood, poor appetite, feelings of worthlessness[55]), were not systematically assessed. Therefore, it is not known if any of the psychological symptoms described were associated with either of these disorders or secondary to head trauma. Furthermore, patients who have been tortured may carry more than one psychiatric diagnosis.[31] Before a new syndrome, such as a torture syndrome, is applied to these patients it should be determined whether the symptoms they display meet established diagnostic categories. These distinctions have important impact on therapeutic approach, including the appropriate use of psychotropic medications.

In addition, individual differences, including gender, age, and education, and many other cultural traits and personality characteristics can have significant impact on an individual's interpretation of the social and psychological meaning of their torture experience.[56] For example, the subjective experience of a rape trauma during detention may be considerably different for a Cambodian woman than the psychological distress following a Chilean political prisoner's mock execution. Yet, both may suffer from symptoms consistent with the diagnosis of posttraumatic stress disorder. Description of these differences in clinical studies would provide meaningful information about the psychiatric disorders associated with torture.

CONCLUSIONS

Emphasis on a rigorous medical approach to torture is in no way meant to detract from the understanding of torture as a social and political phenomenon. Rather, our hope is that the careful documentation of symptoms and physical findings associated with human rights abuses will focus attention on the occurrence of torture and hasten its elimination. The reporting of a physical or emotional injury and the torture event that gave rise to it can provide evidence about who has been tortured, when, and how. Such knowledge can support the international medical and legal system in documenting human rights violations. This information could furthermore help establish legal refugee status for individuals seeking political asylum.

A comprehensive survey of the evaluation and treatment practices of health practitioners and clinics that serve patients who have been tortured would greatly enrich our understanding of the survivor of torture. Important insights into the similarities and differences between the psychological symptoms that follow torture and that characterize the posttraumatic stress disorder could be gained. Such a survey could also help clarify therapeutic issues such as the efficacy of specialized torture rehabilitation treatment centers vs mainstream primary care settings. It might also elucidate the differences between caring for refugee patients in countries of asylum vs caring for patients who live in the sociopolitical context in which the torture occurred.

Future research in this field should explore the prevalence and complications of sexual abuse and head injury in this patient population. The development and validation of culturally and linguistically pertinent screening in-

struments is necessary for appropriate psychiatric diagnosis and care.[57] Descriptions of where and by whom examinations were conducted, and the reporting of information in a format that would ideally include history, physical and psychological findings, and diagnosis would greatly improve communication between health professionals as well as facilitate the evaluation of information on this topic.

Health professionals are in a unique position to foster the prevention of torture. The medical verification of injuries caused by torture can provide powerful testimony to its occurrence. Such evidence can focus international attention on human rights abuses even when they are strenuously denied by the governments that commit them. Therefore, the application of a rigorous medical approach to the patient who has survived torture will not only provide these individuals with the best possible care, but will contribute to the international recognition and eradication of this inhumane practice.

We thank the Boston Health Professionals Group of AI, Jim Welch, Dan Cooper, and the staff of the Boston Indochinese Psychiatry Clinic for their encouragement, Luke Tedeschi for discussions about the pathological sequelae of torture, Salome Waelsch and anonymous reviewers for helpful comments, and Michael Miceli for assistance with the preparation of the manuscript.

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Printed and Published in the United States of America

Psychological Assessment:
A Journal of Consulting and Clinical Psychology
1991, Vol. 3, No. 4, 000–000

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1040-3590/91/$3.00

Measuring Torture and Torture-Related Symptoms

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The medical and psychiatric assessment of torture survivors is a field in its infancy. Over the past 15 years investigators have shifted from the use of open-ended interviews to standardized interview schedules. Preliminary results have not elucidated the psychometric properties of these instruments. The development of valid and reliable instruments is confounded by many unique characteristics of torture survivors such as the horrific nature of the experience, the instability of memory, and the potential upset generated by the assessment. While translations of depressive and trauma related symptoms have been attempted in several languages, cultural and psychological constructs for torture induced disease states remain elusive. The relationship between PTSD and the torture response has not been defined. Advances in the development of instruments for assessing American combat veterans can serve as a model for the torture field, only if they are adapted to the unique cultural and psychological context of torture survivors.

Empirically measuring torture and its associated psychiatric sequelae have been considered by many human rights workers to be a perverse endeavor (Mollica, 1988a). In general, the human rights field has not considered the problems of torture survivors as the legitimate domain of medicine, especially psychiatry. It is argued that if torture survivors do not have "diseases" but "normal" psychological responses to their life threatening situations, then the medicalization of the field will only lead to highly stigmatizing medical and psychiatric labeling. In contrast, scientists who specialize in understanding the impact of stressful life events on human well-being have also been reluctant to investigate the torture experience. George Brown, England's foremost medical sociologist, once stated (private communication) that studying torture survivors was like contrasting the life of King Lear to the lives of ordinary men and women. Unfortunately, most torture survivors are ordinary people who have had the misfortune of having had "Lear-ian" experiences.

The medical and psychiatric evaluation and care of the torture survivor is a field in its infancy (Goldfeld et al., 1988). Little empirical knowledge exists. Although the human rights community has sensitively attempted to protect the torture survivor from damaging medical and psychiatric stigma, recent advances in unveiling the large numbers of affected individuals worldwide and the magnitude of medical and social disability associated with torture have encouraged the development of empirical research. Epidemiologic assessments of patients and traumatized communities have been limited because few valid and reliable instruments for measuring torture and its sequelae are available. Early studies consisted of phenomenological descriptions of patient demographic characteristics, torture experiences, and the immediate medical and personal needs of the torture survivor. The objectives of these studies were to examine persons who had allegedly been tortured in order to document the medical impact of the torture experience as well prove that the torture had actually occurred. Initially, neither the investigators nor the health services believed the claims of the torture survivor (Boberg-Ans, 1975).

The major goal of this article, therefore, is to summarize those factors that influence the development of measurements suitable for empirically evaluating the torture experience and related symptoms. Although it is assumed that the development of measures must adhere to those scientific standards that exist for establishing standardized psychological instruments with acceptable psychometric properties, certain features unique to the study of torture will be reviewed to facilitate this process. The important impact of culture on the torture experience will be stressed because torture survivors have been identified in diverse cultural and geographical settings. Similarities and differences between the psychological assessment of the torture survivor and American combat veterans will be revealed. The research development of assessment tools for measuring the symptoms and diagnostic categories of American combat veterans is at least a decade ahead of similar efforts in the torture field. Yet, the magnitude and importance of this new field demands the rapid introduction of valid instruments that are simple, culturally sensitive, and capable of improving the clinical management of the torture survivor.

Defining Torture

Although *torture* is a commonly used term (Peters, 1985), its specific definition is elusive in our society because so few individuals have experienced torture. Usually, torture is associated with the political methods of oppressive governments and the abuse of political prisoners. The most widely accepted definition of torture is given by the 1986 United Nations Declaration of Human Rights (United Nations, 1987):

> Torture, the most readily recognized of the human rights violations described here as traumatic human rights abuses, has occurred for millennia. Legally torture is defined as: [A] any act by

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> which severe pain or suffering, whether physical or mental, is intentionally inflicted on a person for such purposes as obtaining from him or a third person information or a confession, punishing him for an act he or a third person has committed, punishing him for an act he or a third person has committed or is suspected of having committed, or intimidating or coercing him or a third person, or for any reason based on discrimination of any kind, when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or other person acting in an official capacity.

This definition primarily emphasizes violence directed unjustly at individuals for political purposes. Whether this definition applies to entire populations that have experienced unimaginable suffering through economic oppression, starvation and humiliating life experiences, such as the millions of Cambodians who experienced forced dislocation, slave labor, starvation, and ill health under the Khmer Rouge regime, is unclear (Mollica & Jalbert, 1989).

Lack of a universally acceptable definition for torture, therefore, requires that any attempt to measure torture begins with a comprehensive review of the historical context and an elucidation of the types of tortures experienced by individuals within their unique sociopolitical setting. Modern torture methods range from the common use of falanga (i.e., beating the soles of the feet) in Chile to the use of plastic bags to suffocate Cambodian prisoners in Southeast Asia. If a complete and accurate list of possible torture experiences is offered immediately to the patient, it will cue the torture survivor that the interviewer knows something of his or her situation. This knowledge initiates a process of revelation that often does not occur through the use of open-ended interviews or the recitation of a list of general experiences. Many torture survivors appreciate knowing that the medical professional is aware of what they have suffered and interested in eliciting information about the torture as part of the health-seeking process.

The empirical documentation of torture has been limited to recording the exact nature of the torture experience. This approach assumes (maybe unjustly) that the torture experience is a "powerful" life event capable of producing illness. Life history research is replete with methodological concern for evaluating the psychological impact of a life experience as measured by its intensity, duration, frequency, and meaning. The relationship of stressful life events to the etiology, onset, course, and outcome of various psychiatric conditions, such as schizophrenia, depression, and anxiety, has been the focus of significant empirical research (Miller, 1988). The extreme nature of the torture experience has allowed clinicians and early investigators to assume a priori that the torture experience is such a painful and significant event in the life of the survivor, that it is capable of generating or advancing psychiatric illness. What is missing in this assumption, however, is an appreciation for the cultural meaning of each generic class of torture and its unique psychological impact, if any.

Recent investigations reveal the major differences in the cultural meaning of torture in Western and Asian societies (Mollica, 1988b). Torture in the West has been closely associated with legal traditions extending to the Greco-Roman period. The word *torture* was derived from the Latin word *torquere*, which means "to cause to turn, to twist" in order to extract testimony and/or evidence or to repress opposing religious or political views. In contrast, the word for torture in Cambodia, *tieru na kam*, is derived from the Buddhist term for karma. The individual's karma is an action or thought (often of an evil nature) in a prior existence that produces effects in this life. The torture experience for the Khmer torture survivor is believed to be caused by his or her bad actions and resulting karma. The impact of cultural and personal beliefs similar to the latter on the overall well-being of the torture survivor has not been adequately explored. Furthermore, the psychological impact of different forms of torture is unknown. It is possible that specific torture experiences are associated with specific symptoms and psychological reactions. For example, the unique reactions of Indochinese women to rape trauma are just being demonstrated (Mollica & Son, 1989). These women keep knowledge of their rape a secret unknown to all, especially to their husbands and parents. Community awareness of the rape trauma will negatively stigmatize the victim and her entire extended family, causing all family members to suffer from severe social ostracization. In contrast, Sandinista Nicaraguan women publicly shared their rape trauma as a symbol of their sacrifice and commitment to what they considered a new society. Little is known of the psychological reactions of the families of the "missing and disappeared" in Argentina, physically abused Black children who have been tortured in South African prisons, or Ethiopian refugees who have suffered from politically motivated starvation. Because of this lack of information, case reports from Amnesty International, the published clinical experiences of torture treatment centers, and the literary biographies and testimonies of torture survivors are irreplaceable resources for developing measures capable of accurately capturing the torture experience.

Accuracy of Reporting

It is a well-known clinical phenomenon that tortured individuals constantly change the details of their trauma reports (Mollica & Lavelle, 1988). Whether the reliability of these reports over time is worse than that for other categories of traumatized individuals is unknown. Changes in the reporting of torture events may be due to (a) high emotional arousal with associated hyperbole or defensiveness for some individuals in reporting the torture events; (b) impaired memory secondary to psychiatric and neurological impairments (e.g., beatings to the head and subsequent head injury); (c) culturally prescribed sanctions that allow the trauma experience (e.g., rape trauma for Indochinese women) to be revealed only in highly confidential settings; (d) coping mechanisms that use denial and the avoidance of memories or situations associated with the trauma.

In measuring torture and trauma-related symptoms, numerous reports based on the clinical experiences of clinics treating torture survivors have revealed the importance of eliciting historical information through a neutral mediator, such as an independently tape-recorded history or a checklist (Cienfuegos & Monelli, 1983; Mollica & Lavelle, 1988). Checklists have been demonstrated to be readily accepted by Indochinese patients. These checklists help to "put words around" the trauma events and symptoms that these patients are unable to share during a traditional open-ended psychiatric interview. In fact, Asian torture survivors positively considered the checklist questions as a

useful medical test. Although events and symptoms can be successfully measured by a checklist format, the stability of these events and symptoms over even brief periods of time is unknown (Mollica et al., 1987a, 1987b). Furthermore, because almost all research has been conducted in clinic settings, the problems of measurement in population-based surveys of highly traumatized communities could reveal a significant spectrum effect (Sackett et al., 1985). Respondents in the general population who have been traumatized but who have not sought treatment may exhibit differences in measurement responses from their clinical counterparts. Before large epidemiological surveys are conducted, the spectrum effect will need to be clarified.

Diagnostic Constructs and Linguistic Equivalents

Empirical phenomenological descriptions of torture survivors have failed to reveal a unique torture syndrome (Goldfeld et al., 1988). In fact, there appears to be considerable overlap between torture-related symptoms and the revised third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-III-R;* American Psychiatric Association, 1987) diagnosis of posttraumatic stress disorder (PTSD). Unfortunately, studies have not been conducted that have demonstrated whether the same underlying cultural constructs for PTSD in Western societies exist in non-Western societies. For example, whether Indochinese cultures have specific folk diagnoses for the torture/trauma-related response that are similar or different from the PTSD-disease construct is not known. In contrast, considerable cross-cultural research has revealed the folk diagnoses in non-Western cultures associated with depression (Boehnlein, 1987; Dhadphale, Cooper, & Cartwright-Taylor, 1989). The World Health Organization (WHO) collaborative study of depression, in fact, revealed an important general principal (i.e., whereas core symptoms for depression exist across cultures, these core symptoms may not be those that are emphasized by depressed patients within their unique cultural settings; Sartorious, 1987). Therefore, it follows from the WHO study that, although the *DSM-III-R* criteria for PTSD may be present across cultures, none of the *DSM-III-R* PTSD symptoms may be the most culturally relevant. The core symptoms of PTSD common to all cultures still need to be identified.

Unfortunately, the recent nondiscriminating use of the *DSM-III-R* criteria for eliciting the presence of PTSD in torture survivors has led to a lack of definition of the culture-specific constructs for PTSD, as well as their relative overlap with *DSM-III-R* criteria. This fact has important implications for evaluating the validity of translated instruments. Recent advances in cross-cultural research have resulted in translation methods for generating linguistic equivalents and obtaining item-by-item validity for individual symptoms in standardized American checklists (Westermeyer, 1985). Yet anthropological and epidemiological methods for determining the overall construct validity of the diagnoses given by assembling the symptom items of the checklists are in their preliminary stages of development.

Interviewer–Interviewee Responses

Impact of the spectrum effect on the assessment of torture survivors may be great because of the many complex distortions that occur in the interaction between interviewer and respondent. The interviewer must elicit from the torture survivor accounts of an individual's tragic life experience (Mollica, 1988b). Numerous clinic reports have revealed the horror that is often confronted by the interviewer (Kinzie et al., 1990). In bicultural settings, the bicultural worker (who might have survived experiences similar to the patient) must mediate between the torture survivor and the English-speaking professional (Mollica & Lavelle, 1988). The measurement of torture and trauma events and symptoms is seriously affected by both the ability of English-speaking and bicultural workers to objectively elicit information from the torture survivor. Often interviewers are reluctant to ask any, if not all, of the questions on the standardized interview, especially if the respondent exhibits emotional distress. Often the interviewer will experience nightmares and depressive feelings following the interview. Similarly, psychiatrically impaired torture survivors will have a wide range of reactions to the measurement interview. Over the past decade, however, the general clinical impression has emerged that torture survivors appreciate giving information about their torture as a "testimony" of their traumatic life history and appreciate the recognition (often for the first time) by the health professional of the torture. Investigators working with Indochinese patients in both clinical and community settings have often been "thanked" by the respondents for documenting and validating their torture and trauma experiences. Under favorable conditions, in which confidentiality, informed consent, and respect for the torture survivor is obvious, it is possible that the interviewer has more difficulty in documenting the trauma history than the survivor has in telling it. The latter phenomenon may account for the widespread interest of clinicians working in this field in adapting and using symptom checklists.

Measuring Torture Events

Until recently, few systematic efforts have been made to standardize instruments for assessing the traumatic experiences of torture survivors. In October 1974, the Danes created the first medical group within Amnesty International and initiated the first comprehensive medical assessment of torture survivors. In a comprehensive monograph published in 1990 by O. V. Rasmussen in the *Danish Medical Bulletin,* a review of their methods and findings on 200 torture victims examined between April 1975 and May 1982 have been presented. Until 1980, their initial evaluation of the torture experience consisted of an examination procedure that used open-ended questions. For example, direct questions such as, "have you been tortured by electricity?" were not used. The Danish investigators attempted to obtain the history of the person who had been tortured by having the patient state it in his or her own words. When it came to torture methods, all details were requested from the patient. Eventually, patients were asked to pantomime the torture sessions. By 1980, the Danish group had abandoned this open-ended approach and adapted a standardized method using the instruments of Allodi and his colleagues in Toronto (Allodi, 1985). A review of the torture experienced by the 200 cases studied by the Danes is presented in Appendix A, which reveals the range of inhuman behavior experienced by individuals in more than 20 countries.

The Allodi trauma scale (Allodi, 1985) is one of the first semistructured interview schedules developed to document the torture experience. It is a 41-item questionnaire that assesses traumatic experiences associated with political persecution, imprisonment, and disappearance and death of individuals and families. It includes seven parts: (a) nonviolent persecution; (b) arrest history; (c) physical torture; (d) deprivation during imprisonment; (e) sensory manipulation; (f) psychological torture and ill treatment, and (g) violence to family members. A respondent can receive a subtotal for each section (except for trauma to family, which is not graded) as well as a total score between 0 and 40 measuring his or her total trauma or torture experience.

These initial attempts in the field to assess exposure to torture rely heavily on the respondent's memory and ability to recall horrific life events, often many years after their actual occurrence. The accuracy and completeness of the information given based on these instruments is unknown. Of course, validating the torture event may be a methodological problem impossible to solve because more objective sources than the individual's self-report, such as prison and military records (if any exist), are not available, and the evaluation is often occurring outside of the survivor's country of origin. Stability of reporting over-time, test–retest, and interrater reliability is unknown for almost all studies using the assessment methods described above.

The Harvard Trauma Questionnaire (HTQ; Mollica et al., 1991) was designed to empirically measure the trauma events and trauma symptoms of Indochinese refugees, most of whom had survived torture and the trauma of mass violence (Mollica, unpublished manuscript). This instrument was modeled in three Indochinese languages after the successful validation of the Hopkins Symptom Checklist–25 for anxiety and depression (Mollica et al., 1987a). The questionnaire has three sections. The first section includes 17 specific trauma events that are historically accurate for assessing the Indochinese refugee experience. The choice of items for Part I were based on the extensive clinical experience of the Indochinese Psychiatry Clinic (IPC), the consultation of bicultural mental health specialists, and an initial outcome study conducted by the Indochinese Psychiatry Clinic (Mollica et al., 1987b). The respondent is asked to answer whether he or she witnessed, experienced, or heard about any of the 17 trauma events listed. These events range from starvation to the killing of a family member (see Appendix B). The second section consists of an open-ended question that asks the respondent to describe the most terrifying event or events that have happened to him or her. The third section elicits 30 symptoms related to the torture or trauma experiences recalled in the previous sections. Sixteen of these symptoms were derived from the *DSM-III–R* criteria for PTSD; 14 were derived from IPC's clinical experience with Indochinese torture survivors. Examples of symptoms from the latter category include (a) *feeling ashamed of the traumatic or hurtful things that have happened to you;* (b) *feeling as if you are going crazy;* (c) *feeling that someone you trusted has betrayed you;* (d) *feeling that you have no one to rely on.* Linguistic equivalents for the individual items of all three sections were obtained in each of the three Indochinese languages by using the rigorous translation back-translation methods of cross-cultural instrument development (Westermeyer, 1985).

Initial validation of the HTQ has revealed interrater reliability of .93 for Section 1. Test–retest reliability over a 1-week period for individual trauma events varied from .23 for the question related to serious injury to .90 for the question related to the murder of a family member. The median score for the 17 items was .62. Evaluation of the HTQ's trauma events demonstrated a significant degree of change in reporting of torture and trauma events over a 1-week period. There was a higher consistency found over a 1-week period for personal trauma items (such as torture) than for more general items (such as lack of food or water). It is interesting that more events were remembered during the second interview. Preliminary analyses suggest that highly symptomatic respondents had the best test–retest concordance. Although this increase in memory is consistent with clinical experience, these findings suggest the ongoing importance of studying the stability of memory over time. In addition, the data suggest (although it is unproven) that the most symptomatic individuals are "fixated" on their torture or trauma experiences and are the least likely to vary their reporting.

Preliminary validation studies of Section 3 revealed high interrater reliability (.98). Sensitivity and specificity against a blind diagnosis of PTSD given by experienced clinicians with Indochinese patients was .78 and .66 (cutoff point = 2.5), respectively. Initial analyses revealed that the HTQ's sensitivity for PTSD based on the 16 items derived from the *DSM-III–R* alone was increased by the addition of the 14 culture-dependent items. This is the first demonstration of cultural symptoms being associated with the PTSD criteria. Additional analyses, including factor analysis, will help to determine the exact relationship between the two symptom categories.

Some similarities and differences can be seen between instruments being developed to measure torture and those that have already been developed to measure the experiences of American combat veterans. For example, the Combat Exposure Scale (Foy et al., 1984a, 1984b) is a seven-item cumulative scale for measuring stressful events that were generated out of the premilitary and military history of Vietnam-era veterans. This scale has been found to be reliable and to have excellent psychometric properties. Comparison of methods for assessing torture events, the experiences of mass violence, and the trauma experiences of American combat veterans might illuminate the impact of the nature and type of event on the psychometric properties of the assessment tools.

Results of the validation studies on various standardized instruments for measuring PTSD evaluated by the National Vietnam Veterans Readjustment Study (NVVRS; Kulka et al., 1988) reveal sensitivity scores higher than the HTQ (see Table 1). Again, differences in sensitivity between the Indochinese versions of the HTQ and the American combat veteran assessment instruments for PTSD raise numerous possibilities.

The most culturally important torture- or trauma-related symptoms for Indochinese refugees may still need to be determined. Research is necessary to determine those cultural factors that, when added to the "core" PTSD symptoms, will increase the sensitivity of the HTQ. In contrast, future validation studies using the HTQ may continue to show that it is not as sensitive an instrument as the Mississippi Scale or the PTSD checklist for assessing combat-related PTSD (Keane, Caddell,

Table 1
Relative Diagnostic Accuracy of PTSD Measures

Measure	% correctly classified	Kappa*	Sensitivity	Specificity
Mississippi Scale	88.9	.753	94.0	79.7
PTSD Interview (DIS-style)	87.5	.714	95.5	72.6
PTSD Checklist	84.9	.672	88.3	78.9
Minnesota Multiphasic Personality Inventory	81.5	.605	90.1	68.8
Impact of Event Scale	81.6	.565	91.7	61.8

* Kappa above .75 = excellent agreement; between .40 and .75 = fair agreement.

& Taylor, 1988). This could occur because of the HTQ's lack of sampling content validity due to the widespread presence of culture-specific trauma-related symptoms that have no relationship at all to Western-based PTSD criteria.

Conclusions

Measuring torture and torture-related symptoms is an extremely difficult task. Until recent studies, scientific investigations of the psychological symptoms of torture survivors consisted primarily of the recording of symptoms without any systematic reference to standardized psychiatric diagnostic criteria (Goldfeld et al., 1988). Investigators, furthermore, avoided the conceptual problems associated with determining the cultural constructs for torture-related disease states in the torture survivors studied.

Over the past 15 years, investigators have shifted from reliance on open-ended interviews to the introduction of semistructured interview schedules. The psychiatric properties of these new instruments are just being explored. Acceptance of checklists and standardized interview methods now exists, only after extensive clinical experience with torture survivors has proved that empirical methods can systematically be applied to facilitate the care of torture survivors (Mollica & Lavelle, 1988; Mollica et al., 1990).

The developers of assessment instruments with acceptable psychometric properties have many methodological problems to solve (Haber-Schaim et al., 1988; Helzer & Robins, 1988; Helzer, Robins, & McEvoy, 1987; Keane & Penk, 1988). First, clinical concern for the potential emotional upset that may follow an assessment of torture survivors raises major ethical issues of when these instruments should be used (e.g., first evaluation interview), where (e.g., patient sample versus community sample), and the nature of obtaining informed consent and the follow-up process. The HTQ, one of the first attempts to develop a culturally valid and reliable instrument for assessing torture and trauma survivors, was not allowed to be administered to new patients during the initial evaluation interviews because of the potential negative impact of the instrument's questions on the patient's clinical state. This limitation most likely contributed to the HTQ's lower sensitivity, as compared with similar instruments for American combat veterans, because the HTQ was given only after treatment had a chance to acutely reduce PTSD symptomatology. Yet, these restrictions placed on the HTQ may have been overly cautious because it is not known whether clinical patients are incapable of completing the HTQ in the first interview. Our large population-based study in Thailand using the HTQ in the Khmer camps (N = 1,500) did not precipitate a single distraught respondent who needed acute psychiatric care (Mollica, personal communication). Again, the spectrum effect (i.e., differences between acutely symptomatic clinical patients and community members) is unknown. Investigations exploring the possible negative and positive clinical impact of standardized interview schedules on acute patients could contribute considerably to our knowledge of the diagnostic and therapeutic efficacy of eliciting trauma events and symptoms early in the treatment process.

Second, the development of useful measurements in the torture field can profit from a thorough evaluation of the problems of measurement reliability. Test–retest methods to assess measurement reliability for torture and trauma-related events and symptoms raise crucial concerns regarding the influence of repeated testing on the stability of item-by-item responses versus disease-related fluctuations in memory recall and symptom intensity. Clarifying the latter could contribute to a better understanding of the disease process.

Third, the construct validity of PTSD in non-Western cultures remains elusive (Guarnaccia et al., 1990). Identification of core trauma-related symptoms that may exist across cultures would considerably increase our knowledge of the biological and sociocultural dimensions of traumatic disorders. The initial results of the HTQ have already indicated that it is highly probable that symptoms exist in Indochinese cultures that are strongly associated with the *DSM–III–R* criteria for PTSD. As yet, neither unique folk diagnoses nor culture-bound syndromes specific for trauma-related disease states have been identified. Similarly, the search for a "torture syndrome" continues, but with little supporting evidence. The methodological problems inherent in establishing the construct validity of cultural equivalents of PTSD, as well as those unique psychological states associated with specific torture experiences, remain to be overcome. Although extensive phenomenological descriptions of the torture response in survivors from diverse cultures and geopolitical backgrounds now exist, attempts to organize these phenomena into useful disease concepts or psychological syndromes that can be reliably measured have not occurred.

Fourth, the development of valid measurements in the torture field can profit considerably from PTSD research on American combat veterans. Yet, even in this more advanced area, many validity issues remain unresolved. For example, the striking contrast between prevalence rates for PTSD found in Vietnam veterans between the NVVRS (current prevalence rates for PTSD = 15.2%) and the earlier Vietnam Experience Study (VES; current prevalence rates for PTSD = 2.2%; Center for Disease Control, 1988) is partially due to methodological differences. In the VES, prevalence estimates were based on a lay-administered DIS, an instrument whose sensitivity for detecting PTSD is only 25% (Kulka et al., 1988). In contrast, the NVVRS based its prevalence on multiple scales, including a

clinician-administered SCID (Spitzer & Williams, 1983). Cross-validation and cross-national studies remain central to the methodological advances necessary in both fields (Keane & Penk, 1988).

The torture treatment field is in its infancy. To advance its special insights and methods, it must avoid the uncritical use of ready-made constructs such as the *DSM-III-R* diagnosis of PTSD. The problem of establishing reliable and valid measurements that "capture" the reality of the torture experience and related disease processes reveals the complex relationship between concept (e.g., torture) and indicators (e.g., events and symptoms). It also reveals that many human reactions and limitations that affect our ability to assess the "horror" experienced by the torture survivor.

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Appendix A

Types of Torture Documented by the Danish Investigators ($N = 200$)

Type	*n*	Type	*n*
Beating	198	Suspension (*"la barra"*)	20
Severe beating	195	Physical exhaustion	68
Severe beating head	146	"Standing"	35
Severe beatings in genitals	41	Maintain abnormal body position	26
Falanga	59	Forced gymnastic	22
Telefono	19	Climatic stress	67
Banging the head against the wall or floor	31	Asphyxiation	59
Pushed down stairs, out of windows, etc.	3	Wet *submarino* (*"la banera"*)	39
Torture by heat	27	Dry *submarino*	13
Electronic torture	109	Strangulation	6
Nail torture	5	Light torture	3
Tearing out hairs	6	Sexual violation: rape	7
"Finger" torture	13	Sexual violation: using instruments	20
Suspension by arms or legs	33	Other types of physical torture	44

Appendix B

List of Trauma Events From Section 1 of the Indochinese Versions of the Harvard Trauma Questionnaire

1. Lack of food or water
2. Ill health without access to medical care
3. Lack of shelter
4. Imprisonment
5. Serious injury
6. Torture
7. Brainwashing
8. Rape or sexual abuse
9. Enforced isolation from others
10. Being close to death
11. Forced separation from family members
12. Murder of family or friend
13. Unnatural death of family or friend
14. Murder of stranger or strangers
15. Lost or kidnapped
16. Combat situation
17. Any other situation that was very frightening or in which you felt your life was in danger (please specify)

Received February 13, 1991
Revision received March 4, 1991
Accepted March 4, 1991 ■

A2222-122,123