Medical best practices for the treatment of torture survivors

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Introduction

Accurate identification of torture survivors, including a history of the torture experiences and injuries, is essential for the medical care of torture survivors. This remains a challenge, although the importance was definitively described in the late 1980's by Goldfeld and her colleagues.[1] An accurate diagnosis, of course, is mandatory to implementing cultural and evidence-based treatment.[2,3] Traumatic life events, including the torture events of the patient must be a central focus of clinical thinking. This entails considering the effects of the patient's trauma story on the medical history, review of symptoms, physical examination, and laboratory studies.[4] A comprehensive review of symptoms in each major body system should not only be guided by the information obtained during the preceding medical interview but also by the patient's torture history.[5] The patient's traumatic experiences will help direct the physician to possible areas of the body that may have been damaged. For example, a potential rape victim will need detailed questions related to gynecological problems. A head injury might become evident during the neurological review and the physical sequelae of a burn injury will emerge during questioning on the skin.

The early historical focus on the discovery of a "torture syndrome"[1] which failed to materialize in the 1980s and 1990s has fallen away and has been replaced by a mounting interest in caring for survivors of torture using "best practices" that are also culturally efficacious in culturally diverse populations.[6,7] The latter is no small task since little research that meets the highest standards of a randomized control trials (RCT) have been conducted testing the effectiveness and cultural validity of specific forms of treatment for torture survivors.

The following review of the care of the medical problems of torture survivors includes mostly anecdotal studies in this new field that primarily meet the criteria for promising (P) and emerging (E) best practices as well as the best practices (B) established in related and overlapping medical areas. These studies are listed in accompanying Table 1.

Specialized Clinics for the Care of Torture Survivors

The most clinically effective and cost-effective approach at the clinic and systems levels for the care of torture survivors have not

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Table 1. *Medical Best Practices*

	Article	Type of Practice
Specialized Clinics		
1	Adams KM, Gardiner LD, Assefi N. Healthcare challenges from the developing world: post-immigration refugee medicine. British Med J 2004; 328(7455):1548-1552.	Best
2	Allden K, Baykal T, Iacopino V, Kirschner R, Özkalipçi O, Peel M, Reyes R, Welsh W, editors. Istanbul Protocol: manual on the effective investigation and documentation of torture and other cruel, inhuman or degrading treatment or punishment. Geneva: United Nations. Office of High Commissioner for Human Rights, 2001.	Best
3	Babamoto KS, Sey KA, Camilleri AJ, Karlan VJ, Catalasan J, Morisky DE. Improving diabetes care and health measures among Hispanics using community health workers: results from a randomized controlled trial. Health Educ Behav 2009;36(1):113-126.	Best
4	Boehnlein JK, Kinzie JD, Ben R, Fleck J. One-year follow-up study of posttraumatic stress disorder among survivors of Cambodian concentration camps. Am J Psychiatry 1985;142(8), 956-959.	Promising
5	Carlsson JM, Mortensen EL, Kastrup M. A follow-up study of mental health and health-related quality of life in tortured refugees in multidisciplinary treatment. J Nerv Ment Dis 2005;193(10):654-7.	Promising
6	Cathcart LM, Berger P, Knazan B. Medical examination of torture victims applying for refugee status. CMAJ 1979;121:179-84.	Best
7	Grigg-Saito D, Och S, Liang S, Toof R, Silka L. Building on the strengths of a Cambodian refugee community through community-based outreach. Health Promot Pract 2007;9(4):415-25.	Promising
8	Harlacher U, Jansen GB, Kastrup M, Madsen A, Montgomery E, Prip K, Sjölund BH. RCT Field Manual on Rehabilitation. Sjölund BH, editor. Copenhagen: The Rehabilitation and Research Centre for Torture Victims, 2007.	N/A
9	Kinzie JD, Fredrickson RH, Ben R, Fleck J, Karls W. Posttraumatic stress disorder among survivors of Cambodian concentration camps. Am J Psychiatry 1984;141(5):645-650.	Promising
10	Kinzie JD, Riley C, McFarland B, Hayes M, Boehnlein J, Leung P, Adams G. High prevalence rates of diabetes and hypertension among refugee psychiatric patients. J Nerv Ment Dis 2008;196(2):108-112.	Promising
11	Kinzie JD, Tran KA, Breckenridge A, Bloom JD. An Indochinese refugee psychiatric clinic: culturally accepted treatment approaches. Am J Psychiatry 1980;137(11):1429-1432.	Promising
12	Mollica RF, Wyshak G, Lavelle J, Truong T, Tor S, Yang T. Assessing symptom change in southeast Asian refugee survivors of mass violence and torture. Am J Psychiatry 1990;147(1):83-8.	Promising
13	Moreno A, Piwowarczyk L, LaMorte WW, Grodin MA. Characteristics and utilization of primary care services in a torture rehabilitation center. J Immigr Minor Health 2006;8(2):163-71.	Promising

	Article	Type of Practice
Medical Assessment and Screening		
14	Gurr R, Quiroga J. Approaches to torture rehabilitation: a desk study covering effects, cost effectiveness, participation and sustainability. Torture 2001;11(suppl 1).	Best
15	Rasmussen OV, Amris S, Blaauw M, Danielsen L. Medical physical examination in connection with torture (Section I). Torture 2004;14(1):48-55.	Best
16	Rasmussen OV, Amris S, Blaauw M, Danielsen L. Medical physical examination in connection with torture (Section II). Torture 2005;15(1):37-45.	Best
17	Rasmussen OV, Amris S, Blaauw M, Danielsen L. Medical physical examination in connection with torture (Section III). Torture 2006;16(1):48-55.	Best
Assessment and Screening		
18	Buchwald D, Manson SM, Brenneman DL, Dinges NG, Keane EM, Beals J, Kinzie JD. Screening for depression among newly arrived Vietnamese refugees in primary care settings. West J Med 1995; 163(4):341-345.	Promising
19	Mirzaei S, Knoll P, Lipp RW, Wenzel T, Koriska K, Köhn H. Bone scintigraphy in screening of torture survivors. Lancet 1998;352:949-51.	Best
20	Mollica RF, Caspi-Yavin Y. Measuring torture and torture-related symptoms. J Consult Clin Psychol 1991;3(4):581-7.	Best
21	Mollica RF, Caspi-Yavin Y, Bollini P, Truong T, Tor S, Lavelle J. The Harvard Trauma Questionnaire. Validating a cross-cultural instrument for measuring torture, trauma, and posttraumatic stress disorder in Indochinese refugees. J Nerv Ment Dis 1992;180(2):111-116.	Best
22	Mollica RF, Wyshak G, Lavelle J, Truong T, Tor S, Yang T. Assessing symptom change in southeast Asian refugee survivors of mass violence and torture. Am J Psychiatry 1990;147(1):83-8.	Best
23	Oruc L, Kapetanovic A, Pojskic N, Miley K, Forstbauer S, Mollica R, Henderson DC. Screening for PTSD and depression in Bosnia and Herzegovina: validating the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist. Int J Cult and Ment Health 2008;1(2):105-116.	Best
24	Thomsen AB, Eriksen J, Smidt-Nielsen K. Chronic pain in torture survivors. Forensic Sci Int 1998;108:155-63.	Best
Medical Interventions		
25	Albucher RC, Liberzon I. Psychopharmacological treatment in PTSD: a critical review. J Psychiatr Res 2002;36(6):355-367.	Best
26	Arroll B, Elley CR, Fishman T, Goodyear-Smith FA, Kenealy T, Blashki G, Kerse N, MacGillivray S. Antidepressants versus placebo for depression in primary care. Cochrane Database Syst Rev 2009, Issue 3. Art. No.: CD007954. DOI: 10.1002/14651858.CD007954.	Best
27	Basoğlu M, Marks IM, Sengün S. Amitriptyline for PTSD in a torture survivor: a case study. J Trauma Stress 1991;5(1):77-83.	Promising
28	Berger W, Mendlowicz MV, Marques-Portella C, Kinrys G, Fontenelle LF, Marmar CR, Figueira I. Pharmacologic alternatives to antidepressants in posttraumatic stress disorder: a systematic review. Prog Neuropsychopharmacol Biol Psychiatry 2009;33:169-80.	Promising
29	Bisson JI. Pharmacological treatment to prevent and treat post-traumatic stress disorder. Torture 2008;18(2):104-6.	Promising

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30	Cohen JA, Mannarino AP, Perel JM, Staron V. A pilot randomized controlled trial of combined trauma-focused CBT and sertraline for childhood PTSD symptoms. J Am Acad Child 2007;46(7):811-9.	Best
31	Cooper J, Carty J, Creamer M. Pharmacotherapy for posttraumatic stress disorder: empirical review and clinical recommendations. Aust N Z J Psychiatry 2005;39:674-82.	Best
32	DeMartino R, Mollica RF, Wilk V. Monoamine oxidase inhibitors in posttraumatic stress disorder: promise and problems in Indochinese survivors of trauma. J Nerv Ment Dis 1995;183(8):510-5.	Promising
33	Fernandez M, Pissiota A, Frans O, von Knorring L, Fischer H, Fredrikson M. Brain function in a patient with torture related post-traumatic stress disorder before and after fluoxetine treatment: a positron emission tomography provocation study. Neurosci Lett 2001;297:101-4.	Promising
34	Stein DJ, Ipser JC, Seedat S. Pharmacotherapy for post traumatic stress disorder (PTSD). Cochrane Database Syst Rev 2006, Issue 1. Art. No.: CD002795. DOI: 10.1002/14651858.CD002795.pub2.	Best
35	Stein DJ, Pedersen R, Rothbaum BO, Baldwin DS, Ahmed S, Musgnung J, Davidson J. Onset of activity and time to response on individual CAPS-SX17 items in patients treated for post-traumatic stress disorder with venlafaxine ER: a pooled analysis. Int J Neuropsychopharmacol 2008;12:23-31.	Best
36	U.S. Department of Health and Human Services. Chapter 2: The Fundamentals of Mental Health and Mental Illness. In Mental Health: A Report of the Surgeon General. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health. 1999.p.27-116.	Best
Insomnia		
37	Buysse, DJ. Chronic Insomnia. American Journal of Psychiatry 2008;165(6): 678-686.	Best
38	Buysse DJ, Reynolds C, Monk T, Berman S, Kupfer D. The Pittsburgh sleep quality index: A new instrument for psychiatric practice and research. Psychiatry Research 1989;28(2):193-213.	Best
39	Fürstenwald U. Group therapy for severely traumatized refugees with a focus on sleep disorders. Hemi-Sync J 2005; XXIII(3-4):v-vi.	Promising
40	Glovinsky PB, Yang CM, Dubrovsky B, Spielman AJ. Nonpharmacologic strategies in the management of Insomnia: Rationale and implementation. Sleep Medicine Clinics 2008;3:189-204.	Best
41	Krakow B, Hollifield M, Johnston L, Ross M, Schrader R, Warner TD, Tandberg D, Lauriello J, McBride L, Cutchen L, Cheng D, Emmons S, Germain A, Melendrez D, Sandoval D, Prince D. Imagery rehearsal therapy for chronic nightmares in sexual assault survivors with posttraumatic stress disorder: a randomized controlled trial. JAMA 2001;286(5):537-545.	Best
42	Krakow B, Johnston L, Melendrez D, Hollifield M, Warner T, Chavez-Kennedy D, Herlan MJ. An open-label trial of evidence-based cognitive behavior therapy for nightmares and insomnia in crime victims with PTSD. Am J Psychiatry 2001;158:2043-7.	Best
43	Silber MH. Chronic Insomnia. New Engl J Med 2005;353(8):803-810.	Best

Article		Type of Practice
Head Injury		
44	Mollica R, Lyoo K, Chernoff M, Bui H. Lavelle J, Yoon S, Kim JE, Renshaw PF. Brain structural abnormalities and mental health sequelae in South Vietnamese ex-political detainees who survived trauamatic head injury and torture. Arch Gen Psychiatry 2009;66(11):1-12.	Best
Physical Rehabilitation		
Psychotherapy Massage		
45	Danneskiold-Samsøe B, Bartels EM, Genefke I. Treatment of torture victims – a longitudinal clinical study. Torture 2007;17(1):11-7.	Emerging
Meditation		
46	Krisanaprakornkit T, Sriraj W, Piyavhatkul N, Laopaiboon M. Meditation therapy for anxiety disorders. Cochrane Database Syst Rev 2006, Issue 1. Art. No.: CD004998. DOI: 10.1002/14651858.CD004998.pub2.	Promising
Exercise		
47	Grodin MA, Piwowarczyk L, Fulker D, Bazazi AR, Saper RB. Treating survivors of torture and refugee trauma: a preliminary case series using qigong and t'ai chi. J Altern Complement Med 2008;14(7):801-6.	Promising
48	Mead GE, Morley W, Campbell P, Greig CA, McMurdo M, Lawlor DA. Exercise for depression. Cochrane Database Syst Rev 2009, Issue 3. Art. No.: CD004366. DOI: 10.1002/14651858.CD004366.pub4.	Promising
Acupuncture		
49	Madsen MV, Gøtzsche PC, Hróbjartsson A. Acupuncture treatment for pain: systematic review of randomized clinical trials with acupuncture, placebo acupuncture, and no acupuncture groups. BMJ 2009;338:a3115.	Promising
50	Smith CA, Hay PPJ, MacPherson H. Acupuncture for depression. Cochrane Database Syst Rev 2010, Issue 1. Art. No.: CD004046. DOI: 10.1002/14651858.CD004046.pub3.	Promising
51	Sutherland JA. Getting to the point. Am J Nurs 2000;100(9):40-5.	Promising

been demonstrated. For years there has been a debate whether torture survivors need to be treated in their own specialized clinics or mainstreamed into conventional psychiatric and primary health care settings. It has not been proven that primary health care and community mental health centers can readily identify survivors of torture and provide them with the services they need. In contrast, Kinzie et al[8] and Mollica et al[9] along with the Danish Rehabilitation and Research Center for Torture Victims have shown that specialized clinics have promising results.[10]

The ethical protection of torture survivors and their need for a comprehensive medical and psychiatric examination has been well established in the Istanbul Protocol.[11] And there exists a large body of medical experience on the identification and treatment of the wide range of medical problems affecting resettled refugees, mainly those who have been tortured.[12,13] This body of work provides best practice baseline for all clinics initially approaching the assessment and care of torture survivors mostly under the broader designation of refugee

who now generally fall under statewide and local public health services for newly arrived immigrants.

While acute care for newly arrived refugees, including those who are torture survivors, now receive their greatest attention and government funding, chronic care models such as those used for diabetes are being applied to refugee communities and their subset of torture survivors. This seem to be a promising practice since a number of randomized trials have demonstrated in Hispanic and African American communities the effectiveness of community health workers, along with other adaptations of primary care, prompted improved diabetes control. Outcome studies of chronic disease control for diabetes, heart disease, stroke, hypertension and the metabolic syndrome in torture survivors are still necessary.[14-16]

Assessment and Screening

Over the past three decades extensive scientific data on the most frequent medical and psychiatric disorders affecting torture survivors have been well documented.[16-20] These references provide more detailed information beyond the scope of this review, and must be studied by any medical provider caring for torture survivors in order to be aware of the major medical and psychiatric sequelae associated with torture. At this time few medical findings are definitely pathognomic, except for biopsies of skin lesions associated with cigarette burns and electric shocks[1] and bone scans to assess damage to the alleged area of injury secondary to torture.[21] Chronic pain assessment and management in torture survivors is a promising area of development.[22]

Screening instruments that assess the traumatic life experiences of the patient in a yes/no format and that can be given as a medical 'test' have been demonstrated to be an ideal addition to the physician's clinical assessment of the torture survivor. It is very difficult for highly traumatized patients to present their symptoms of emotional distress to the doctor in any coherent fashion without being emotionally re-traumatized.[23]

Simple screening instruments, such as the Hopkins Symptom Checklist-25 (HSCL-25) and the Harvard Trauma Questionnaire (HTQ), are almost mandatory in the clinical assessment of torture survivors.[24-26] The Harvard Program in Refugee Trauma (HPRT) has had extensive experience training PCPs in the use of screening instruments such as the Hopkins Symptom Checklist-25 (HSCL-25) and the Harvard Trauma Questionnaire (HTQ) in PCP. The HSCL-25 is a 4-point Likert scale (1=*not at all*, 4=*extremely*) that measures 15 symptom items of depression in the past week. Based on previous research on the optimal cut-off point that maximizes sensitivity while maintaining high specificity, scores greater than 1.75 indicate the presence of major depressive disorder. The HTQ was originally developed by Mollica and colleagues as a companion measure to the HSCL-25 to assess traumatic events and trauma-related symptoms. The HTQ also makes a DSM-IV diagnosis of PTSD at a cut off of 2.0. The HSCL-25 and the HTQ are highly reliable and culturally valid instruments.[27]

The Vietnamese Depression Scale, one of the first culture-specific screening instruments for depression[28] has not been widely used as a model for other torture survivors in spite of its excellent ethnographic features.

Medical Interventions

Proven best practices (BP) for the care of medical problems of torture survivors is limited and relies heavily on the accepted standard of care found for mainstream medical problems in the Cochrane Reports (www.cochrane.org). To-date not a single RCT

exists on the medical care of torture survivors. The following is a review of anecdotal clinical reports as well as related practices from mainstream medical care.

Depression and Posttraumatic Stress Disorder

Turning our attention to direct medical interventions, the effectiveness of psychotropic drugs have been anecdotally described for refugee and torture survivors[29] and definitely demonstrated for depression and posttraumatic stress disorder (PTSD) as best practices in mainstream populations.[30-38] One caveat, however, clearly exists. Special attention must be given to the proper dosing of psychotropic drugs in culturally diverse populations. This field of ethnopsychopharmacology is revealed in Chapter 2 of the Surgeon General's Report on Mental Health[39] and a scientific toolkit guide for medication and depression is available from Harvard Program in Refugee Trauma upon request (www.hprt-cambridge.org).

Insomnia

Chronic and severe sleep problems have emerged as a major medical problem in survivors of violence and torture.[40,41] Extensive research has revealed the effective non-pharmacological strategies for sleep disturbances regardless of whether it is of primary or secondary to a medical or psychiatric disorder.[42-46] Randomized trials demonstrating the efficacy of non-drug treatment of nightmares secondary to rape trauma (common in tortured women and crime victims) is noteworthy.[40,44]

Neuropsychological problems of Traumatic Head Injury (THI)/ Traumatic Brain Injury (TBI)

TBI has been well known and described as a common and major sequelae of torture.[45,46] TBI results from traumatic blows to the head and other forms of traumatic head injury (THI), strangulation, anoxia secondary to waterboarding, and near drowning, and suffocation (e.g. placing a plastic bag over a person's head).

Mollica et al.[47] in their landmark study of torture survivors have demonstrated the deleterious effects of THI on the brain of torture survivors and its correlation with depression. The neuropsychological literature on THI in mainstream patients suggests that these THI patients can be successfully rehabilitated through specialized psychosocial and cognitive training.[47] In addition, it is possible that depression and PTSD secondary to THI may be associated with chronic post-concussive symptoms that may be difficult to treat with standard approaches using psychotropic drugs and counseling.

Physical Rehabilitation

Massage,[48] physical therapy,[48] meditation,[49] diet and exercise,[50,51] and acupuncture[52-54] are promising and emerging best practices in the physical rehabilitation of torture survivors.

Future Directions

The medical care of torture survivors has made enormous scientific advances over the past three decades in documenting and describing the major medical and psychiatric sequelae of torture. The health impact of torture can be severe and chronic and lead to major disability and even premature death. Clearly, since there are not enough specialized clinics to care for torture survivors in the United States and abroad, mainstream primary care practitioners and certain specialists such as psychiatrists need to be taught how to identify and treat the medical problems associated with torture. Evidence-based medicine from mainstream approaches to patient care must be applied to the medical care of tor-

ture survivors. However, every diagnosis and treatment must be contextualized not only to the cultural and social environment of the patient, but to those unique barriers to treatment and healing that affect individuals who have experienced cruel and degrading human abuse of a horrific and unspeakable nature by other human beings. Longitudinal studies of the medical impact of torture overtime on survivors as well as specific hypothesis based RCTs need to be conducted to determine what standard best practices need to be modified in order to maximize clinical outcomes in the care of survivors. At the minimum all current clinics that care for survivors need to carefully monitor their treatment outcomes and in partnership with research institutions scientifically evaluate their treatment outcomes. The findings would be strengthened if they could be compared against suitable control groups. Each torture treatment center must measure up well in comparison to the "best" general medicine has to offer, and ideally even do better in adapting current best practices to the unique cultural, social and psychological realities of the torture survivor.

The "best practices" for treating the medical problems of torture survivors remains the "best practices" available to-date for caring for mainstream patients with more conventional causes of their medical and psychiatric illnesses. As with all medical and mental health problems, the bio-psycho-social model remains the most promising manner of thinking about cause and effect and linking the latter to treatment.[55,56] The special conditions that characterize the torture experience and which may have a major impact on adapting standard medical best practices to the care of survivors has been widely discussed and need to be considered in caring for all those human beings that have suffered extreme violence.[4]

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37. Stein DJ, Pedersen R, Rothbaum BO et al. Onset of activity and time to response on individual CAPS-SX17 items in patients treated for posttraumatic stress disorder with venlafaxine ER: a pooled analysis. Int J Neuropsychopharmacol 2008;12:23-31.
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45. Glovinsky PB, Yang CM, Dubrovsky B et al. Nonpharmacologic strategies in the management of insomnia: rationale and implementation. Sleep Medicine Clinics 2008;3:189-204.
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