Prevalence of Torture Survivors Among Foreign-Born Patients Presenting to an Urban Ambulatory Care Practice

Sondra S. Crosby, MD,[1,2] Marie Norredam, MD,[3] Michael K. Paasche-Orlow, MD, MPH,[1] Linda Piwowarczyk, MD, MPH,[2,4] Tim Heeren, PhD,[5] Michael A. Grodin, MD[2,4,5]

[1]Department of Medicine, Boston University School of Medicine, Boston, MA, USA; [2]Boston Center for Refugee Health and Human Rights, Boston, MA, USA; [3]Department of Health Services Research, Institute of Public Health, University of Copenhagen, Copenhagen K, Denmark; [4]Department of Psychiatry, Boston University School of Medicine, Boston, MA, USA; [5]Boston University School of Public Health, Boston, MA, USA.

BACKGROUND: The prevalence of torture among foreign-born patients presenting to urban medical clinics is not well documented.

OBJECTIVE: To determine the prevalence of torture among foreign-born patients presenting to an urban primary care practice.

DESIGN: A survey of foreign-born patients.

PATIENTS: Foreign-born patients, age $\geq$ 18, presenting to the Primary Care Clinic at Boston Medical Center.

MEASUREMENTS: Self-reported history of torture as defined by the UN, and history of prior disclosure of torture.

RESULTS: Of the 308 eligible patients, 88 (29%) declined participation, and 78 (25%) were not included owing to lack of a translator. Participants had a mean age of 47 years (range 19 to 76), were mostly female (82/142, 58%), had been in the United States for an average of 14 years (range 1 month to 53 years), and came from 35 countries. Fully, 11% (16/142, 95 percent confidence interval 7% to 18%) of participants reported a history of torture that was consistent with the UN definition of torture. Thirty-nine percent (9/23) of patients reported that their health care provider asked them about torture. While most patients (15/23, 67%) reported discussing their experience of torture with someone in the United States, 8 of 23 (33%) reported that this survey was their first disclosure to anyone in the United States.

CONCLUSION: Among foreign-born patients presenting to an urban primary care center, approximately 1 in 9 met the definition established by the UN Convention Against Torture. As survivors of torture may have significant psychological and physical sequelae, these data underscore the necessity for primary care physicians to screen for a torture history among foreign-born patients.

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Recent events at Abu Ghraib and Guatánamo Bay have raised the public's awareness of torture. The United States of America became a signatory of The United Nations Convention Against Torture and Other Cruel, Inhuman, and Degrading Treatment or Punishment (C.A.T.) in 1988.[1] The American Medical Association's Code of Ethics states that physicians must not "countenance, condone, or participate in the practice of torture or other forms of cruel, inhuman, or degrading procedures, whatever the offence of which the victim of such procedures is suspected, accused or convicted."[2,3] The C.A.T. defines survivors of torture as those who have endured "severe pain or suffering, whether physical or mental, . . . when such pain or suffering is inflicted by or at the instigation of or with the consent or acquiescence of a public official or any other person acting in an official capacity."[4] The Offices of the United Nations High Commissioner for Human Rights has documented the broad prevalence of torture around the world.[5]

The purpose of torture is to break the mind, body, and spirit of victims and to send fear into communities. Torture often includes beatings, psychological torment, rape, burning, suspension, electrical shocks, and detention under inhumane conditions.[6] Torture is one of the most traumatizing of human experiences and can result in significant long-term medical and psychological sequelae.[7–12]

Several community-based surveys of the prevalence of torture survivors in specific immigrant communities have been published. Marshall et al.[13] surveyed a cohort of 586 Cambodian adults in Long Beach, California, who lived in Cambodia during the Khmer Rouge reign, and found that fully 54% reported a history of torture. Jaranson et al.[14] surveyed 622 Somali and 512 Oromo refugees in Minneapolis-St. Paul and found the prevalence of torture to be 36% and 55%, respectively. We are aware of 2 clinic-based surveys examining the prevalence of torture. Eisenman et al.[15] reported a prevalence of torture of 6.6% among a sample of 121 foreign-born patients presenting to an ambulatory clinic in New York City. Significantly, none of these patients were recognized to be survivors of torture by their treating physicians. In addition, Eisenman et al.[16] surveyed 638 Latino adult patients in 3 community-based primary care clinics. Fifty-four percent reported political violence, and 8% reported torture. Those exposed to political violence had higher rates of physical and psychological problems compared with those not exposed to political violence. In Eisenman's[16] study, only 3% of the patients who had experienced political violence reported telling any clinician, and none reported that their current physician asked about a history of political violence.

These studies all have relevance to primary care physicians (PCPs) serving immigrant populations. However, despite these important data, it is unclear how well these studies are replicable across a broad spectrum of immigrant primary care populations. Insufficient data have been presented on demographic factors that can be used by PCPs to identify

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Address correspondence and requests for reprints to Dr. Crosby: Section of General Internal Medicine, Department of Medicine, Boston University School of Medicine, ACC-5, 850 Harrison Avenue, Boston, MA 02128 (e-mail: scrosby@bu.edu).

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high-risk groups and guide screening practices in the primary care setting.

The primary objectives of this study are to determine the prevalence of torture among foreign-born patients presenting to an inner city primary care clinic in Boston and to evaluate whether or not patients have discussed their history of torture with their physicians. A secondary objective was to evaluate demographic variables (age, sex, duration in the United States, and region of origin) as associated factors with having a history of torture.

METHODS

This is a survey of foreign-born patients presenting from July 2003 to August 2004 to the Boston Medical Center Primary Clinic, a large urban medical center. On days covered by project staff, study interviewers screened all patients presenting for care through registration data or interview. Foreign-born patients were asked to participate in a survey while waiting to see their primary care providers. Inclusion criteria were as follows: age ≥ 18 years, foreign-born (outside of the United States and territories), and presenting to the Primary Care Clinic at Boston Medical Center. Patients were excluded if they were unwilling to participate in the survey. In addition, subjects were not able to participate if a professional interpreter was not available. Patients referred to the Primary Care Clinic by the Boston Center for Refugee Health and Human Rights, who were known to be survivors of torture, were also excluded from this survey.

Data Collection

After obtaining informed consent, a research associate interviewed subjects using a structured instrument to ascertain baseline information including the following: age, sex, country of origin, year of arrival in the United States, and to ascertain whether the subject had a history of torture. Questions on personal and family exposure to torture were modified from Eisenman et al.[15,17] While our wording differs, Montgomery and Foldspang[18] found a sensitivity of 82% and a specificity of 92% on comparing self-reported exposure with torture on a structured interview with in-depth psychological assessment. We asked, "Were you ever harmed or threatened by the following: government, police, military or rebel soldiers?" Patients who endorsed this question were then asked, "Some people in your situation have experienced torture. Has that ever happened to you or your family? Please explain." Patients were considered to have either personal or family exposure to torture if they answered affirmatively to both questions and if the explanation given was consistent with the UN C.A.T. definition of torture, as described above. Subjects who identified trauma at the hands of robbers or bandits, or whose history of trauma was not clearly government sponsored or inflicted by a group that the government was not willing or was unable to control, were not defined as conforming to the UN definition of torture.

Patients reporting a history of torture were referred with their consent to the Boston Center for Refugee Health and Human Rights, a comprehensive program that cares for survivors of trauma and torture at Boston Medical Center. No information was retained for subjects who refused to participate. The study was approved by the Institutional Review Board at Boston Medical Center.

Statistical Analysis

The percent of patients reporting a personal or family history of torture is described through exact 95% confidence intervals (CI) for a binomial percentage. To evaluate regional variations, subjects' countries of origin were categorized as follows: (1) Central America, South America, and the Caribbean, (2) Asia, or (3) Africa. The percent of patients with a history of torture is compared across demographic groups through the χ^2 test of independence (for nominal characteristics such as sex, area of origin) and the χ^2 test for linear trend in percentages (for ordinal categorizations [quintiles] of age and years in the United States). Results significant at a 2-tailed $P<.05$ level are considered statistically significant. Computations were performed using STATA, version 8 (Stata, College Station, TX).[19]

RESULTS

Of the 453 identified as potentially foreign-born based on registration data, 145 (32%) were excluded due to being born in the United States or territories. Of the 308 eligible patients, 78 (25%) were not asked to participate owing to the lack of a professional translator. Of the 230 eligible patients asked to participate, 142 (62% of the 230 asked, 46% of 308 eligible) consented to participate in the survey. This sample had a mean age of 47 years (range 19 to 76), was mostly female (58%, 82/142), had been in the United States for an average of 14 years (range 1 month to 53 years), and came from 35 different countries (Table 1). Fully, 16% (23/142, 95% CI 11% to 23%) reported a history of being personally tortured or having a family member tortured. Among these patients, 9 of 23 (39%) reported both personal and family member experience of torture, 9 (39%) of 23 reported only a history of being personally tortured, and 5 (22%) of 23 reported only a history of torture experienced by a family member. Among the 18 patients who reported personal experience of torture, the UN definition of torture was met in 16 (89%) of these cases to reveal a prevalence of 11% (16/142, 95% CI 7% to 18%). Among the 5 patients who reported only a history of torture experienced by a family member, the UN definition of torture was met in 4 (80%) of these cases.

Most patients (15/23, 67%) reported discussing their experience of torture with people in the United States. However, only 39% (9/23) had ever discussed their experience of torture with a health care provider and 8 (33%) of 23 reported that this survey was their first disclosure to anyone in the United States.

Subjects in the United States for a shorter period of time had a significantly higher rate of reporting a history of personal or family torture than subjects who had been in the United States longer ($P<.01$) (Fig. 2). For example, subjects in the United States for ≤ 3.5 years (lowest quintile) had a 38% (95% CI 19% to 57%) rate of personal or family torture and subjects in the United States for >30 years (highest quintile) had a 4% (95% CI 0% to 12%) rate of personal or family torture.

Significant regional variation is apparent. Whereas 6% (95% CI 1% to 11%) of subjects from Central America, South America, and the Caribbean reported a history of personal or family torture, 18% of subjects (95% CI 0% to 45%) from Asia, and fully 41% of subjects (95% CI 24% to 57%) from Africa reported a history of personal or family torture ($P<.001$).

Table 1. Demographics of Study Population with a History of Torture Exposure

Patient Group	% (*n*'s) With A History of Torture Exposure	*P* Value*
Overall sample	16 (23/142)	—
Sex		.86
Males	17 (10/60)	
Females	16 (13/82)	
Age (quintiles)		.70
19 to 32	21 (6/29)	
33 to 45	6 (2/31)	
46 to 50	22 (6/27)	
51 to 60	26 (8/31)	
61to 76	4 (1/24)	
Years in the United States (quintiles)		<.01
<3.5	38 (11/29)	
3.5 to 9	14 (4/29)	
9.1 to 15.5	11 (3/27)	
15.6 to 22	13 (4/30)	
23 to 53	4 (1/26)	
Area of origin		<.01
Central America, South America, and the Caribbean	6 (6/94)	
Asia	18 (2/11)	
Africa	41 (15/37)	

*P-*value comparing the percent with a history of torture exposure across patient groups via the χ^2 test of independence for nominal variables (sex, area of origin) and the χ^2 test for trend for ordinal variables (age, years in the United States).*

There was no statistical trend relating the rate of reporting a history of torture with subjects' age (P=.70) or sex (P=.86).

DISCUSSION

We found that 11% (16/142, 95% CI 7% to 18%) of participants reported a history of being personally tortured in a manner that met the UN definition of torture. Two associated factors for higher rates of torture were region of origin (Africa) and having been in the United States for a shorter period of time. However, the observation that subjects in the United States for a shorter period of time were more likely to be tortured is likely due to the fact that the duration for which subjects had been in the United States was associated with the region of origin (P<.01). For example, while half of all subjects who had been in the United States for less than 3.3 years (first quintile) were of African origin, only 5% of those who had been in the United States for greater than 31 years (fifth quintile) were of African origin.

Our finding that 39% of subjects reporting torture had disclosed this history to a health care provider is extraordinarily high when compared with the existing literature. Eisenman et al.[16] reported only 3% ever telling a clinician about political violence, and 0% reported that their current clinician asked about political violence. There are several hypotheses for this unexpected finding. The greater Boston area is a resettlement site for many immigrant communities, and there are multiple organizations that serve the needs of these populations, including specific attention to the needs of survivors of torture and human rights abuses. Some of these organizations are Physicians for Human Rights, The International Institute of Boston, and The Boston Center for Refugee Health and Human Rights. The presence of, and awareness about these organizations in communities may increase awareness of torture among both patients and providers. We have also provided training about caring for survivors of torture to health care providers in multiple clinical sites in the greater Boston area, directly raising awareness of this topic among primary care providers.

Our findings on the prevalence of torture in African primary care patients (41%) is similar to that reported by Jaranson et al.[14] in a community-based population of East African refugees (25% to 69%). The prevalence of torture in subjects from Central and South America and the Caribbean was 6%, compared with 8% reported by Eisenman[16] in Latino primary care patients. Our prevalence of torture was higher than Eisenman[15] reported in a primary care sample of 121 patients in NYC (6.6% vs 11%). It is possible that differences in subjects' countries of origin may account for this difference.

Several important limitations should be considered when interpreting these data. Few studies have examined the validity of self-reported history of torture. The reference that we cite (Montgomery and Foldspang[18]) reports good validity of a personal report of torture to a clinical determination of torture as defined by the Tokyo Declaration. The validity of our questions in determining torture as established by the UN Convention has not been directly established. We did not evaluate socioeconomic status and it is possible that the prevalence of torture may vary with socioeconomic status. We excluded subjects who were known to the Boston Center for Refugee Health and Human Rights, which is based at Boston Medical Center. This was appropriate, as two-thirds of patients seen at Boston Center for Refugee Health and Human Rights have been referred for care at the Boston Center for Refugee Health and Human Rights by outside sources (attorneys and resettlement agencies) and including such patients would inappropriately enrich our sample. Conversely, as one-third of the patients at the Boston Center for Refugee Health and Human Rights are referred from within Boston Medical Center excluding such patients will deplete the sample and yield an underestimation of the true prevalence of torture in the clinic population. The magnitude of this effect, however, is quite small due to the relative sizes of the Primary Care Clinics at Boston Medical Center (>20,000 unique patients/year, >33% foreign-born) and The Boston Center for Refugee Health and Human Rights (359 patients last year). Inclusion of subjects removed from the sampling pool due to internal referral would have increased our prevalence estimate from 11% (95% CI 7% to 18%) to 13%. It is also possible that the prevalence we report is an overestimate due to the presence of a specialized center for survivors of torture within the institution. Although patients of the Boston Center for Refugee Health and Human Rights were not included in this survey, relatives and acquaintances of such patients, who themselves likely would have a high rate of exposure to violence, may have been drawn to the institution for this reason. It is possible that overestimation of prevalence rates could be due to high utilization of health care services, as seen with domestic violence populations.[20] Weighting the subject selection process by health care utilization was not possible because the surveys were administered anonymously.

We collected no information on nonparticipants. While it is possible that some survivors of torture would choose to

avoid this study because of fear and stigma, we are unable to confirm this conjecture. While the interview instrument used in this study has been validated previously, we were not able to confirm that the instrument operates effectively across the many cultures represented by the participants in this study. We did not ask whether participants were refugees or asylum seekers. This might have provided useful data for primary care providers, as immigration status may be an important easily identifiable associated factor. It is unclear whether the point prevalence we report can be generalized to the foreign-born patients in other primary care practice settings. It is important to realize that the actual point prevalence of torture will vary among clinical practices depending on the proportion of foreign-born patients from different countries and various parts of the world. In addition, prevalence will change over time with country-specific situations, such as wars, oppressive leaders, and politics.

The high prevalence of torture in foreign-born primary care patients highlights the importance of clinical interview and exam skills for primary care providers to identify patients who have experienced torture or potential vicarious trauma. Lack of recognition and treatment may result in significant psychological and physical sequelae.

The clinical presentation of survivors of torture has been shown to be highly varied.[21,22] For example, patients may present to their primary care providers with chronic headache or organic brain syndromes due to head trauma, nerve palsies due to suspension, genital pain due to genital torture, foot pain due to falanga, chest pain, abdominal pain, hearing loss, or dental trauma.[10] Often, there are no telltale marks, and physicians are not generally trained to detect the specific sequelae of torture.[23] In addition, mental illness, including posttraumatic stress disorder, depression, anxiety, adjustment disorder, and psychosomatic illness, are all prevalent in torture survivors, but may not be easily diagnosed in the absence of an appropriate history.[24,25] This lack of recognition may result in unnecessary investigations, or labeling patients as "hypochondriacs." At worse, the lack of a history will result in failure to get treatment and prolongation of suffering.

Our results showed that this survey was their first disclosure to anyone in the United States of being personally tortured or having a family member tortured for one-third of the subjects. Survivors of torture may try to avoid medical care due to fear of further persecution, deportation, and humiliation. They may not identify themselves to physicians, even when seeking services. Such patients may harbor a basic mistrust of physicians and may be reluctant to tell their caregivers about their history. For communities without dedicated immigrant and refugee services, providers may need more diligence to elicit a torture history in foreign-born patients.

In our population, variables associated with a higher risk of torture were recent arrival to the United States, and immigration from the African and Asian continents. We believe that clinicians should routinely ask patients from the African and Asian continents who are recent arrivals to the United States about a history of torture. Further studies of large numbers of foreign-born patients across a broad spectrum of primary care practices are needed to stratify risk factors for torture in clinical settings, and to provide further guidance to clinicians for torture history screening in primary care settings.

Screening programs, educational initiatives, and interventions for treatment should be further studied. Physicians seeing immigrant patients in their practices should be familiar with the general backgrounds of their patients' countries of origin, common medical and psychological sequelae of torture, and should be knowledgeable about specialized referral centers for survivors of torture. The Boston Center for Refugee Health and Human Rights has a web course available for providers on caring for survivors of torture (www.bcrhhr.org). Information about specialized treatment centers for survivors of torture can be found at The National Consortium of Torture Treatment Programs Web site.[26]

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REFERENCES

1. Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, Office of the High Commission for Human Rights, United Nations Web site. Available at: http://www.ohchr.org/english/countries/ratification/9.htm. Accessed March 1, 2005.
2. **American Medical Association.** Code of Medical Ethics Current Opinions with Annotations, 2004–2005. American Medical Association; 2005.
3. The role of the physician and the medical profession in the prevention of international torture and in the treatment of its survivors. American College of Physicians. Ann Intern Med. 1995;122:607–13.
4. United Nations Convention against Torture and Other Cruel, Inhumane, or Degrading Treatment or Punishment, New York, 1984.
5. United Nations High Commissioner for Refugees, Statistics. Available at: http://www.unhcr.org/.Accessed March 18, 2005.
6. **Rasmussen OV.** Medical aspects of torture. Dan Med Bull. 1990;37, 1–88(Suppl 1):1–88.
7. **Basoglu M, Paker M, Ozmen E, Tasdemir O, Sahin D.** Factors related to long-term traumatic stress responses in survivors of torture in Turkey. JAMA. 1994;272:357–63.
8. **Goldfeld AE, Mollica RF, Pesavento BH, Faraone SV.** The physical and psychological sequelae of torture. Symptomatology and diagnosis. JAMA. 1988;259:2725–9.
9. **Moisander PA, Edston E.** Torture and its sequel—a comparison between victims from six countries. Forensic Sci Int. 2003;137:133–40.
10. **Moreno A, Grodin MA.** Torture and its neurological sequelae. Spinal Cord. 2002;40:213–23.
11. **Nice DS, Garland CF, Hilton SM, Baggett JC, Mitchell RE.** Long-term health outcomes and medical effects of torture among US Navy prisoners of war in Vietnam. JAMA. 1996;276:375–81.
12. **Norredam M, Crosby S, Munarriz R, Piwowarczyk L, Grodin M.** Urologic complications of sexual trauma among male survivors of torture. Urology. 2005;65:28–32.
13. **Marshall GN, Schell TL, Elliott MN, Berthold SM, Chun CA.** Mental health of Cambodian refugees 2 decades after resettlement in the United States. JAMA. 2005;294:571–9.
14. **Jaranson JM, Butcher J, Halcon L, et al.** Somali and Oromo refugees: correlates of torture and trauma history. Am J Public Health. 2004;94:591–8.
15. **Eisenman DP, Keller AS, Kim G.** Survivors of torture in a general medical setting: how often have patients been tortured, and how often is it missed? West J Med. 2000;172:301–4.
16. **Eisenman DP, Gelberg L, Liu H, Shapiro MF.** Mental health and health-related quality of life among adult Latino primary care patients living in the United States with previous exposure to political violence. JAMA. 2003;290:627–34.
17. **Eisenman DP, Tracy K, Keller AS.** Development of a screening questionnaire for detecting victims of torture in medical settings. J Gen Intern Med. 1988;13:126.
18. **Montgomery E, Foldspang A.** Criterion-related validity of screening for exposure to torture. Dan Med Bull. 1994;41:588–91.

19. **StataCorp.** Stata Statistical Software: Release 7.0. College Station, TX: Stata Corporation; 2001.
20. **Ulrich YC, Cain KC, Sugg NK, Rivara FP, Rubanowice DM, Thompson RS.** Medical care utilization patterns in women with diagnosed domestic violence. Am J Prev Med. 2003;24:9–15.
21. **Hougen HP, Kelstrup J, Petersen HD, Rasmussen OV.** Sequelae to torture. A controlled study of torture victims living in exile. Forensic Sci Int. 1988;36:153–60.
22. **Rasmussen OV, Lunde I.** Evaluation of investigation of 200 torture victims. Dan Med Bull. 1980;27:241–3.
23. **Weinstein HM, Dansky L, Iacopino V.** Torture and war trauma survivors in primary care practice. West J Med. 1996;165:112–8.
24. **Goldfeld AE, Mollica RF, Pesavento BH, Faraone SV.** The physical and psychological sequelae of torture. Symptomatology and diagnosis. JAMA. 1988;259:2725–9.
25. **Holtan N, Antolak K, Johnson DR, Ide L, Jaranson J, Ta K.** Unrecognized torture affects the health of refugees. Minn Med. 2002;85:35–9.
26. **National Consortium of Torture Treatment Programs.** Available at: http://ncttp.westside.com/default.view. Accessed March 29, 2005.