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ORIGINAL RESEARCH CONTRIBUTION

Survivors of Torture: Prevalence in an Urban Emergency Department

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Abstract

Objectives: Torture has been documented in 132 countries, and approximately 400,000 survivors of torture reside in the United States. It is unknown if torture survivors seek medical care in emergency departments (EDs). The authors set out to estimate the prevalence of survivors of torture presenting to an urban ED.

Methods: A cross-sectional survey of ED patients was performed by convenience sampling from October 2008 to September 2009 in a large urban teaching hospital in New York City. ED patients not of a vulnerable population were consented and entered into the study. Participants were asked two screening questions to ascertain if they were self-reported survivors of torture. For exploratory purposes only, these individuals were further queried about their experiences. The detailed responses of these self-reported survivors of torture were compared to the United Nations Convention Against Torture (UNCAT) definition by a blinded, independent panel.

Results: Of 470 study participants, 54 individuals (11.5%, 95% confidence interval [CI] = 8.6% to 14.4%) self-reported torture. Nine (16.7%) had ongoing physical disabilities, 30 (55.6%) had recurrent intrusive and distressing memories, 42 (77.8%) never had a physician inquire about torture, and only eight (14.8%) had requested political asylum. Of these self-reported survivors of torture, 29 (53.7%) met the UNCAT definition, for an adjudicated prevalence of 6.2% (95% CI = 4.3% to 8.7%).

Conclusions: Self-reported survivors of torture presented to this urban ED, and a significant proportion of them met the UNCAT definition of a torture survivor. Continuing torture-related medical and psychological sequelae were identified, yet there was a low rate of asylum-seeking. Only a minority were previously identified by a physician. These data suggest an unrecognized public health concern and an opportunity for emergency physicians to intervene and refer survivors of torture to existing community resources.

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To the best of our knowledge, no data exist that describe the population of torture survivors who seek care in emergency departments (EDs). Torture has been documented in 132 countries around the globe.[1] It is estimated that more than 400,000 survivors of torture currently reside in the United States.[2–4] Torture survivors commonly arrive in the United States as refugees, asylum seekers, or undocumented immigrants. Of the 74,654 documented refugees who arrived in the United States in 2008, it is likely that many have endured torture.[5] Previous studies have estimated that between 5 and 35% of all refugees have been tortured.[6] Often lacking adequate legal protection, these are vulnerable populations. Torture leads to high rates of posttraumatic stress disorder (PTSD), anxiety, depression, and numerous physical disabilities.[7,8] A multidisciplinary approach to the identification and treatment of torture survivors is therefore necessary, yet typically unavailable in the ED.[9] The identification of these patients in the ED would provide an opportunity to guide them to existing medical care, mental health care, and legal services.

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The true prevalence of torture survivors in the United States is largely unknown, and current estimates are mostly based on documented, self-reported cases. Such data may not be accurate largely because of reporting biases in this population. Such biases stem from cultural differences, sense of stigma about their victimization, and insecure residency status.[1] Consequently, survivors of torture are an elusive populace to survey and are a potentially sizeable underserved population.[10] Without accurate estimates of prevalence, it is difficult to allocate appropriate resources to them.

While no data on ED utilization by torture survivors exist, limited data regarding their use of primary care centers have been published. Currently, torture survivors can find treatment at more than 26 federally funded treatment centers that provide directed services to this population. These centers are diverse in their settings and services offered, but are found throughout the country in most large urban centers. These centers serve as many as 5,000 to 6,000 survivors of torture annually and provide a wide range of services including medical and mental health care, legal, and social services.[11] At one such center, the Boston Center for Refugee and Human Rights, patients had on average 2.3 initial health assessment visits and 3.6 primary care visits over 12.8 months.[12] In this same study, 59% of patients had sought care from other providers, such as EDs and walk-in clinics, prior to accessing services at the Boston center. This illustrates the point that newly resettled refugees who are torture survivors are often not aware of these centers and initially seek care elsewhere.[13]

Moreover, there are numerous real and perceived barriers that may impede torture survivors from obtaining medical care, psychological care, and legal assistance.[14] They frequently have not sought asylum status—and the medical benefits that status affords—for fear of deportation or arrest. Those survivors of torture who have access to psychological and medical care are often mistrustful of the medical establishment.[1,15–17] This mistrust compounded with their sense of stigma, guilt, and shame about their experiences decreases the likelihood that they will identify themselves to providers.[1,17] Besides frequently lacking financial resources and language skills, they may also lack the knowledge and guidance needed to navigate the complexities of the U.S. health care system.[18] On the provider end, awareness may be an issue. Medical providers are often unaware of the presence of survivors of torture in their communities, the unique medical issues they face, and may be averse to addressing the realities of torture.[19] The unfortunate cumulative result is that many survivors of torture may leave accessible health care settings with significant issues unaddressed. A cycle of unmet health care needs and recidivism is a potential outcome.

EDs are a primary interface between a community and the medical system. The Emergency Medical Treatment and Active Labor Act mandates that a medical screening examination be performed on all patients presenting to an ED, and there are intentionally fewer barriers to care in this setting.[20] Given the existing barriers to care facing torture survivors elsewhere, EDs may represent an easily accessible source of medical care and a probable first point of contact with medical providers.[21] Indeed, recommendations have been made that emergency medical providers be made aware of this population's unique needs.[22,23]

Two previous studies estimating the prevalence of self-reported survivors of torture presenting to primary care clinics found a prevalence rate of 8% to 11%. These surveys were conducted in urban communities with large foreign-born populations.[10,24] These data suggest that survivors of torture are a significant population in the urban community, but little is known of whether they seek care at similar rates in the ED population.

To the best of our knowledge, the population of survivors of torture presenting to EDs has never been described. Because of the relative ease of access to ED medical care, there may be significant numbers of survivors of torture who present to EDs that serve large populations. As survivors of torture are at risk for deportation, torture-related physical disabilities, and psychological sequelae, their ED visit provides a critical opportunity to intervene and assist them. A description of this population would be useful to emergency physicians (EPs) who may encounter torture survivors. If identified in the ED, individuals could be easily referred to local organizations that specifically care for survivors of torture. We undertook this study to investigate whether significant numbers of torture survivors present to EDs.

The objective of this study was to estimate the prevalence of self-reported survivors of torture presenting to one urban ED. Secondary exploratory objectives were to determine what proportion of them met the United Nations Convention against Torture (UNCAT) definition of a torture survivor, to determine their asylum status, and to determine if they had been previously identified by a physician.

METHODS

Study Design and Population

The study was a cross-sectional survey of patients presenting to the one urban ED. The study design and protocol were reviewed and approved by the institutional review board in October 2008.

The study was performed at a large public urban hospital in New York City, which is a historical entry point for refugees and asylum seekers.[25] In 2009, New York received 4,412 registered refugees, the third highest number of the 50 states.[5] Per U.S. census data, the hospital is located in one of the most ethnically diverse zip codes in the United States, with the highest portion of foreign-born New York City residents.[26,27] As a public hospital, it is a critical source of health care for the community and has an estimated annual volume of 136,047 ED visits.[28] Of these, 42% of all visits are self-pay. A total of 23 and 11% of visits are covered by Medicaid and Medicare, respectively. The adult ED, the source of patients for the study, is estimated to account for 60% of the annual ED volume.

Study subjects were enrolled and surveyed through convenience sampling of patients presenting to the ED

from October 2008 through April 2009. Population samples were contingent on the rate of ED turnover and research assistant scheduling. Research assistants worked blocks lasting 2 to 8 hours per session. A scheduling system employing Google Calendar (Google Inc., Mountain View, CA) was used to ensure that sampling occurred at the busiest times, Monday to Friday. Research assistants and study investigators signed up for shifts based on need, availability, and preference.

All patients presenting to the ED were eligible for inclusion into the study and research assistants screened all patients presenting to the ED during each study period. Excluded from the study were vulnerable and/or incapacitated patients: prisoners, children under 18 years, the critically ill, and individuals with dementia or delirium.

If individuals met the eligibility criteria, patients were consented for their willingness to participate in the study. The consent process and the administration of the study were performed by different research assistants to minimize any sense of coercion as requested by the institutional review board.

Survey Content and Administration

Previous studies have based surveys on the Detection of Torture Survivors Survey (DTSS) that allows patients to self-identify themselves as survivors of torture.[10,24,29] This survey has been validated against blinded expert clinical interview using the Harvard Trauma Questionnaire (HTQ), followed by in-depth psychological assessment, to identify people who meet the World Medical Association's (WMA) Tokyo Declaration.[30] The HTQ is the criterion standard in measurement of trauma and PTSD, but is not specifically designed for survivors of torture. It was therefore combined with in-depth psychological interview to verify individual's accounts.[31] The Tokyo Declaration defines torture as "the deliberate, systematic or wanton infliction of physical or mental suffering by one or more persons acting alone or on the orders of any authority, to force another person to yield information, to make a confession, or for any other reason."[30]

To more succinctly identify survivors of torture, Crosby et al.[24] used a modified version of the DTSS simplified to two questions. We used the questions devised by Crosby et al. in our study to identify survivors of torture. The questions rely on self-reporting and are quickly administered. Self-reporting has been demonstrated to have a sensitivity of 82% and a specificity of 92%.[32,33] Family is included in this screening instrument, as physical torture is frequently directed toward family members to inflict psychological terror and coerce subjects.[34,35] While the modified DTSS has not been tested in an ED population, there are no other validated screening instruments available that would allow effective administration in an ED setting.

As asylum is often granted in the United States based on meeting the definition of the UNCAT—the most widely recognized definition of torture—we sought to determine which of our patients who self-identify as survivors of torture may qualify for additional protections afforded by international law. The UNCAT defines torture as "any act by 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 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. It does not include pain or suffering arising only from, inherent in or incidental to lawful sanctions."[36] Table 1 summarizes the essential differences between the WMA's Tokyo Declaration and the UNCAT.[30,36]

Surveys were verbally administered to consenting patients in the ED present during the study period. Survey responses were recorded anonymously. Language interpretation was available through live interpreters provided by the hospital's interpreter service or via the AT&T Language Line during nonbusiness hours. Demographic information including age, sex, country of birth, and arrival year (if foreign-born) were obtained. After demographic information was collected, we asked each enrollee the following two questions: 1) were you ever threatened or harmed by groups such as the government, police, military, or rebel soldiers?; and 2) some people in your situation have experienced torture. Has that ever happened to you or your family?

Respondents who answered positively to either of these two screening questions were considered to be

Table 1
Definitions of Torture

Definitions	WMA's Tokyo Declaration[27]	UNCAT[32]
Infliction of physical or mental suffering		
Deliberate	X	X
Systematic	X	X
Wanton	X	O
Purposeful intent (punishment, coercion, confession, intimidation, discrimination, etc.)	X	X
Individual acting alone	X	O
With orders, consent, or acquiescence of:		
On the orders of any authority	X	O
A public official or person acting in an official capacity	X	X

UNCAT = United Nations Convention Against Torture; WMA = World Medical Association.

self-reported survivors of torture. These individuals were flagged for optional referral to our social worker and given multilingual pamphlets containing information about local support services for survivors of torture.

Enrollees who were considered self-reported survivors of torture were asked to further define their experiences through a series of questions. Patients who did not answer positively to either screening question were not asked additional questions. Self-reported survivors of torture were asked to voluntarily answer the following questions:

1. Who were you tortured by?
2. What best describes what happened to you?
3. Why you were tortured?
4. Did you leave your home or country as a result of being tortured?
5. Do you have any physical disabilities as a result of being tortured?
6. Do you have any recurrent intrusive or distressing memories as a result of being tortured?
7. Has a doctor ever asked you if you have been tortured?
8. Have you ever applied for political asylum?

Questions 1 through 6 were derived from the UNCAT definition of torture to assist in determining whether the individual met internationally recognized criteria for having been tortured. The DTSS screens for torture survivors (and tortured family members) meeting the WMA's Tokyo Declaration and is intended to be a sensitive test. Gathering this information will allow the application of the UNCAT criteria, which is a more specific definition of torture.

Responses to surveys were recorded by research assistants on hard copy forms and stored in a locked office file cabinet. These responses were subsequently entered into a Microsoft Excel database (Microsoft Corp., Redmond, WA) for further data analysis.

Outcome Measures

The primary outcome measure was the prevalence of self-reported survivors of torture presenting to the ED as determined by affirmative answers to the two screening questions. A secondary outcome measure was to assess whether individuals' experiences met the UNCAT definition of torture. To determine this, the descriptive responses of the enrollees who self-reported to be survivors of torture were collected. These responses were stripped of all demographic information, assigned a number, and given to a group of five physicians not otherwise associated with the study and previously identified as familiar with international and refugee health. The five adjudicators were asked ''Does this respondent meet UNCAT criteria?'' The physicians were blinded to each other's responses. Agreement between three or more adjudicators resulted in a cohort of self-reported survivors of torture defined as meeting this definition (UNCAT survivors of torture).

Data Analysis

For exploratory purposes, descriptive statistics (percentages, median, interquartile range [IQR], 95% confidence intervals [CIs]) were calculated for demographic information, survey answers, and UNCAT torture survivor data. Nominal variables were analyzed with odds ratios (ORs), and either chi-square or Fisher's exact test when appropriate. Continuous variables were analyzed with the Mann-Whitney U-test. All p values were two-tailed with 5% alpha. Computer analysis was performed using SPPS version 17 (SPSS Inc., Chicago, IL).

RESULTS

A total of 478 people were approached, and 470 surveys were completed by participants representing 50 countries of origin (Figure 1, Table 2). A total of 391 hours of data collection occurred, with 32 hours collected on overnight shifts.

Of the 470 responses, the median age was 46 years (IQR = 32 to 59 years), 50.2% were female, and 72.8% were foreign-born (Table 3). The most frequently represented country of origin in the complete sample was the United States (n = 128), followed by Colombia (63), Dominican Republic (43), Ecuador (41), Mexico (32), Bangladesh (28), Peru (13), India (12), and the Philippines (11; Table 2). Median duration of residence in the

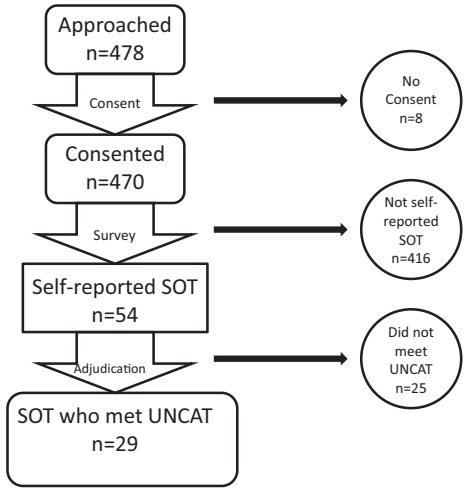

Figure 1. Study flow diagram. SOT = survivor of torture; UNCAT = United Nations Convention Against Torture.

Table 2
Countries of Origin for Sample (N = 470)

Country	n (%)
United States	128 (27)
Colombia	63 (13)
Dominican Republic	43 (9)
Ecuador	41 (9)
Mexico	32 (7)
Bangladesh	28 (6)
Peru	13 (3)
India	12 (3)
Philippines	11 (2)
China	8 (2)
Pakistan	8 (2)
El Salvador	7 (1)
38 others (each <1%)	76 (16)

Table 3
Baseline Demographics

Demographic	All Patients	Not Tortured	Self-reported Tortured	UNCAT Tortured	Self-reported Tortured, Not UNCAT
Total (*n*)	470	416	54	29	25
Median age, yr (IQR)	46 (32–59)	47 (32–59.75)	44.5 (32.5–54.5)	44 (36.5–53.5)	45 (28–57.5)
Males	234 (49.8)	201 (48.3)	33 (61.1)	20 (69.0)	13 (52)
Females	236 (50.2)	215 (51.7)	21 (38.9)	9 (31)	12 (48)
U.S.-born	128 (27.2)	106 (25.5)	22 (40.7)	11 (37.9)	11 (44)
Foreign-born	342 (72.8)	310 (75.5)	32 (59.3)	18 (62.1)	14 (56)
Median arrival year (range)	1995 (1940–2009)	1995 (1940–2009)	1998/1999 (1952–2008)	1999/2000 (1952–2008)	1990/1991 (1966–2008)

Values are expressed as *n* (%) unless otherwise noted.
IQR = interquartile range; UNCAT = United Nations Convention Against Torture.

Table 4
Estimated Prevalence of Survivors of Torture in Study Sample

Demographic	*n*	Prevalence (%)	95% CI
Total	470		
Self-reported	54/470	11.5	8.6–14.4
Met UNCAT	29/470	6.2	4.3–8.7
Met UNCAT—torture outside United States	21/470	4.5	2.9–6.8
Foreign-born	342		
Self-reported	32/342	9.4	6.5–13.0
Met UNCAT	18/342	5.3	3.2–8.2
Met UNCAT—tortured outside United States	18/342	5.3	3.2–8.2
U.S.-born	128		
Self-reported	22/128	17.2	11.1–24.9
Met UNCAT	11/128	8.6	4.4–14.9
Met UNCAT—tortured outside United States	3/128	2.3	0.5–6.7

UNCAT = United Nations Convention Against Torture.

United States for foreign-born patients was 13 years, with a range of 0 to 69 years.

Of the 470 patients, 54 (11.5%) self-reported to be survivors of torture (95% CI = 8.6% to 14.4%; Table 4). Fifteen (3.2%) respondents stated that they had been harmed by groups such as the government, police, military, or rebel soldiers. Sixteen (3.4%) stated they or their family had experienced torture. An additional 23 (4.9%) answered yes to both screening questions. These 54 respondents were thereafter classified as self-reported survivors of torture. Self-reported survivors of torture were significantly more likely to be born in the United States: 22 of 128 (17.2%) were U.S.-born versus 32 of 342 (9.4%) of foreign-born (p = 0.02). There were no significant associations with sex (33 of 234 [14.1%] males vs. 21 of 236 [8.9%] females, p = 0.08), age (median age = 44.5 years [IQR = 32.5 to 54.5 years] for survivors of torture vs. 47 years [IQR = 32 to 59.75 years] for nonsurvivors of torture, p = 0.31), or arrival year (1998/1999 vs. 1995, p = 0.84) between respondents who were and were not self-reported survivors of torture (Table 3).

Self-reported survivors of torture described torture by military (10), police (14), rebel soldiers (8), family (5), individuals (2), or groups of individuals (1), while 10 declined to answer (Table 5). Two reported torture by more than one group. Thirty (55.6%) of these participants suffered physical harm, 26 (48.1%) emotional harm, two (3.7%) sexual harm, and six (11.1%) other forms of harm. Eleven (20.4%) gave no answer. Eighteen (33.3%) reported more than one type of harm. Countries of origin for self-reported survivors of torture include the United States (22); Colombia (10); Dominican Republic (5); China (2); Ecuador (2); El Salvador (2); Philippines (2); and one each from Bangladesh, Croatia, Guatemala, Honduras (although events occurred in Nicaragua), Mexico, Morocco, Nepal, Antigua, and Sierra Leone. Reasons for torture included ethnicity/tribal affiliation (4), political affiliation (4), religion (2), local customs (2), sexual orientation (1), no reason (13), and other (21), with 11 who declined to answer. Thirty-three (61.1%) left their home or country as a result of their torture. Nine (16.7%) have physical disabilities, 30 (55.6%) have recurrent intrusive or distressing memories, 42 (77.8%) have never had a physician ask them about their torture, and eight (14.8%) have requested political asylum.

When stripped of all demographic information, 29 of the 470 study respondents (6.2%, 95% CI = 4.3% to 8.7%) had experiences consistent with the UNCAT definition of torture as determined by the blinded physician panel (Table 4). This represents 53.7% (29 of 54) of the self-reported survivors of torture (Table 4). Males were

Table 5
Characteristics of Self-reported Survivors of Torture and UNCAT Survivors of Torture

Characteristics of Torture	Self-reported SOT (n = 54)	UNCAT SOT (n = 29)
Who were you tortured by?		
Military	10 (18.5)	10 (34.5)
Police	14 (25.9)	11 (37.9)
Rebel soldiers	8 (14.8)	7 (24.1)
Family	5 (9.3)	1 (3.4)
Other	6 (11.1)	0
Individual	2 (3.7)	0
Group of individuals	1 (1.9)	1 (3.4)
Declined to answer	10 (18.5)	0
What happened to you?		
Physical harm	30 (55.6)	20 (69.0)
Emotional harm	26 (48.1)	22 (75.9)
Sexual harm	2 (3.7)	1 (3.4)
Other	6 (11.1)	2 (6.9)
Declined to answer	11 (20.4)	0
Why were you tortured?		
Ethnicity/tribal affiliation	4 (7.4)	4 (13.8)
Political affiliation	4 (7.4)	4 (13.8)
Religion	2 (3.7)	2 (6.9)
Local customs	2 (3.7)	2 (6.9)
Sexual orientation	1 (1.9)	1 (3.4)
No reason	13 (24.1)	7 (24.1)
Other	21 (38.9)	13 (44.8)
Declined to answer	11 (20.4)	0
Left home/country	33 (61.1)	18 (62.1)
Physical disabilities	9 (16.7)	8 (27.6)
Distressing memories	30 (55.6)	21 (72.4)
Unidentified by physician	42 (77.8)	21 (72.4)
Requested asylum?	8 (14.8)	8 (27.6)

All values are reported as *n* (%).
SOT = survivor of torture; UNCAT = United Nations Convention Against Torture.

significantly more likely to be UNCAT survivors of torture (20 of 234 [8.5%] of males vs. 9 of 236 [3.8%] of females; p = 0.03), but no significant associations were found with patient age (median age = 44 years [IQR = 36.5 to 53.5 years] for UNCAT survivors of torture vs. 47 years [IQR = 28 to 57.5 years] for nonsurvivors of torture; p = 0.58), country of origin (11 of 128 (8.6%) of U.S.-born vs. 18 of 342 (5.3%) of foreign-born; p = 0.18), or arrival year (1999/2000 vs. 1995; p = 0.55). Eight of the 29 torture survivors meeting the UNCAT definition were tortured within the United States. Thus, 21 (4.5%, 95% CI = 2.9% to 6.8%) of them experienced torture outside the United States.

Survivors of torture meeting the UNCAT definition described torture by military (10), police (11), rebel soldiers (7), family (1), and groups of individuals (1; Table 5). Twenty (69%) suffered physical harm, 22 (75.9%) suffered emotional harm, one (3.4%) suffered sexual harm, and two (6.9%) suffered other harm. Countries of origin for UNCAT survivors of torture include the United States (11); Colombia (7); Dominican Republic (3); China (2); and one each for Croatia, El Salvador, Honduras, Morocco, Philippines, and Sierra Leone. Reasons for torture included ethnicity/tribal affiliation (4), political affiliation (4), religion (2), local customs (2), sexual orientation (1), no reason (7), and other (13).

Of UNCAT survivors of torture, 18 (62.1%) left home or country as a result of their torture. Eight (27.6%) have physical disabilities, 21 (72.4%) have recurrent intrusive or distressing memories, 21 (72.4%) have never had a physician ask them about their torture, and eight (27.6%) have requested political asylum.

DISCUSSION

In our study, the prevalence of self-reported survivors of torture in patients presenting to one urban ED was 11.5%, representing a previously unidentified ED population with specific and unique needs. Using a blinded adjudication panel that reviewed individuals' circumstances of torture, we found an overall adjusted prevalence of 6.2% of ED patients who met the UNCAT definition. Of foreign-born patients, 9.4% self-report torture, with 5.3% meeting the UNCAT criteria.

Our survey tool identified a number of individuals who had suffered other forms of non-UNCAT violence. Twenty-five of the 54 (46%) individuals who identified themselves as survivors of torture did not meet UNCAT criteria. Individuals who described torture by military, police, rebel soldiers or groups of individuals, torture resulting in physical harm, emotional harm, physical disability, or recurrent distressing memories or who left home or country were more likely to meet the UNCAT definition (Table 5). Respondents describing torture by family or individuals, or for other reasons, were less likely to meet UNCAT criteria. Some of these individuals were likely victims of intimate partner violence. Others described experiences consistent with interracial violence or untargeted assault. Still others did not qualify as meeting the UNCAT definition for lack of detail.

While many forms of violence do not meet the UNCAT definition, it is not the only internationally accepted definition of torture, and certain cases of torture may fit other definitions. Other studies have used the definition put forth by the WMA's Tokyo Declaration.[31] Adjudication using the UNCAT definition for all patients who self-report torture was not intended to be a determination of whether or not torture in fact happened, nor as a means to identify which survivors of torture qualified for legal, medical, or psychological aid. It is, however, a strict international definition that is recognized by a majority of nations. As such, an adjudicated prevalence held to this standard can be more widely understood and interpreted.[37]

The number of U.S.-born respondents to self-report torture deserves comment. Previous surveys of torture survivors have surveyed foreign-born patients only. The modified DTSS specifically includes family to identify individuals who have been coerced or psychologically terrorized by the forced observation of family members being tortured. We included U.S.-born patients due to the large numbers of first-generation Americans residing in the local community. In our study, U.S.-born respondents were present and more likely to self-report torture than foreign-born patients. This significance disappeared when the UNCAT definition was applied by independent panel. Although previous studies excluded the U.S.-born population, this finding was unexpected. Some were children of foreign-born parents who experienced

torture and simply identified themselves based on the modified DTSS. Others were multi-generational U.S. nationals who reported that they experienced torture. Other contributing factors may have been that non–U.S.-born survivors of torture were disproportionately reluctant to identify themselves as such or perhaps some torture survivors mis-reported being born in the U.S.

Of the U.S.-born torture survivors who met the UNCAT definition of torture, three experienced torture outside the United States, and eight described experiences that occurred within the United States. It is interesting that eight acts within the United States, stripped of demographic information and adjudicated by panelists who did not know the respondents' location of torture, met the UNCAT definition of torture. While there is presumably legal recourse to address these acts that occurred in the United States, we cannot assume to know what options were available to these respondents. UNCAT torture survivors whose attacks occurred in the United States deserve further study.

LIMITATIONS

The current survey sampled only emergency patients at a single public hospital in a diverse neighborhood of New York City, which limits generalization to the greater population or communities with smaller foreign-born populations. It is likely that areas without such historically large foreign-born populations have fewer numbers of survivors of torture. However, refugees are documented to have settled in all 50 states, so survivors of torture could potentially present to any ED across the country.[3]

It is likely that our survey missed some number of survivors of torture secondary to the availability of research assistants. This affected our ability to comprehensively survey the entire ED census during the study period, and by necessity we used a convenience sample. While we believe that our convenience sampling was not inherently biased, the collection of data was not comprehensive and therefore may limit generalization.

While some surveys were performed overnight, the majority of them were performed during the times of highest ED census (7 a.m. to 11 p.m.). Torture survivors might preferentially present during off hours perhaps because of work, or to avoid being identified as torture survivors, and could have been missed. While we saw no evidence of this on our overnight data collection shifts, this could have affected the representation of torture survivors in our sample.

Some patients may have been excluded from the survey secondary to the exclusion criteria or self-reporting bias. Patients who were excluded due to altered mental status, incarceration, critical illness, or age may have been survivors of torture. Because of self-reporting bias, some individuals may distrust providers asking questions regarding torture or may be unwilling to identify themselves during a brief encounter in the ED. It is thus impossible to determine specificity for this tool, as false-negatives (survivors of torture who do not self-report) are unknown. Still others may have been reluctant to provide the detail necessary to allow adjudication as UNCAT survivors of torture.

Certain limitations arise from the DTSS, the only previously validated torture survivor survey instrument. It was designed to identify self-reported torture survivors who meet the WMA's Declaration of Tokyo definition of torture in primary care clinics. Designed for a different setting, it may not have performed as well in the ED. Furthermore, the DTSS has no defined mechanism to further define torture to a study participant. In our study it was left to the person administering the survey to further define ''torture,'' if further clarification was needed. Our UNCAT adjudication process was intended to identify responses that met the more restrictive UNCAT definition of torture, often a determinant of asylum. Language interpretation, often provided by phone interpreters, may not have accurately translated subtleties of the survey questions.

Some (11) survey participants declined or were unable to complete the detailed survey and were therefore not considered to have met UNCAT. It is possible that some of these experiences did in fact meet the UN definition, but were not categorized as such.

CONCLUSIONS

We found a significant prevalence of survivors of torture in one urban ED in our exploratory study. High rates of torture-related medical and psychological suffering and low rates of asylum application were identified in this population. A minority of surveyed survivors of torture had been previously identified by a physician in our study. Our data suggest a larger public health dilemma of unidentified survivors of torture in the community whose needs are not completely served by current ED practices and torture treatment centers. These findings illustrate an opportunity for better identification of survivors of torture in EDs. Being intimate interfaces between hospitals and their communities, EDs are uniquely positioned to identify and refer survivors of torture to existing community resources, in addition to treating their acute illness. Future studies should focus on optimizing the identification and referral of at-risk individuals. Further studies of prevalence in other geographic areas will help direct resources.

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