



Graduate public health training in healthcare of refugee asylum seekers and clinical human rights: evaluation of an innovative curriculum

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Abstract

Objectives An innovative curriculum was developed to equip public health students with appropriate attitude and skills to address healthcare of asylum seekers.

Methods Implemented in 2005 the curriculum included: (1) didactic sessions covering epidemiology and health sequelae of torture, asylum laws, and approaches to identify survivors' healthcare needs; (2) panel discussions with survivors and advocates; and (3) participating in medico-legal process of asylum seeking. Complementary mixed methods evaluations included pre- and post-curriculum questionnaires, formal curriculum evaluations, final papers and oral presentations.

Results 125 students participated. Students showed improved knowledge regarding sequelae of abuse and survivors' healthcare needs ($P < 0.01$), improved attitudes towards working with survivors ($P < 0.05$) and self-efficacy in identifying at-risk populations and addressing healthcare of survivors ($P < 0.05$). Students reported increased desire to pursue global health and human rights careers.

Conclusions As an advocacy and cultural competency training in public health practice addressing healthcare of refugees domestically, this curriculum was well received

and effective, and will also help students better serve other similar populations. Population case-based domestic opportunities to teach global health and health and human rights should be effectively utilized to develop a well-equipped global health corps.

Keywords Asylum seeker · Curriculum · Public health students · Health human rights

Introduction

More than half of the world's countries routinely employ torture (Basoglu 1993; Amnesty International 2012). There are millions of asylum seekers worldwide, the majority of which have experienced torture (UNHCR 2010; Asgary et al. 2006). Up to 12 % of the US population is foreign-born (US Census Bureau 2010); 70 % of them from developing regions and at risk of having experienced human rights abuses in the past. Survivors suffer significant psychosocial and medical problems (Wenzel et al. 2000; Wenzel 2007; Vorbrüggen and Baer 2007; Carinci et al. 2010; Asgary et al. 2013a), and research has shown that health status of asylum seekers is heavily influenced by complex socio-medical factors including fragile legal status, lack of employment, poor housing status and food security, lack of medical insurance, and mental health issues (Asgary et al. 2013a; Asgary and Segar 2011; Piwowarczyk et al. 2008; Wenzel et al. 2000; Wong et al. 2005; Bischoff et al. 2003). Currently, there are minimal formalized programs to systematically address the broader social factors affecting the health of this vulnerable population. Although multiple UN declarations and conventions against torture call for the training of all health professionals in the evaluation and care of survivors of human

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rights abuses (Torture Convention 1984), only a limited number of the US graduate and post-graduate training programs provide the types of educational opportunities (Asgary et al. 2006, 2013a, b; Padder 1995; Heisler et al. 2003; American College of Physicians 1995), which typically include direct exposure to or interaction with survivors (Asgary et al. 2006, 2013a, b). Furthermore, health professionals have an ethical and professional obligation to evaluate and provide care to survivors of human rights abuses (Torture Convention 1984; American College of Physicians 1995; Sonis et al. 1996). While the growing interest in global health among US public health students has led to an increase in the number of global health courses, very few programs offer focused training around the health of refugee populations or domestic implications of human rights abuses. Almost none address the health issues faced by survivors of human rights abuses and asylum seekers, who represent the most vulnerable subset of the refugees. Therefore, public health practitioners often lack the awareness, attitude and skills to effectively evaluate and address the health needs of this vulnerable population or advocate on their behalf. Such training that focuses on working with foreign-born populations who have experienced human rights abuse is an important domestic educational opportunity at the intersection of global public health and human rights. In this paper, I describe and discuss the pillars and outcomes of an innovative, population-specific human rights educational curriculum for graduate public health students to train them in the healthcare of asylum seekers. Through a domestic tangible example, this curriculum explores the health challenges faced by survivors, and aims to build public health professionals' capacity to recognize, identify and address the health consequences of human rights abuses in a global health context.

Methods

The curriculum was developed and offered in 2005 by the author. The overarching goal was to raise public health students' awareness regarding human rights abuses including torture, sex trafficking, and child labor; and to provide education in the epidemiology of torture, demographics of survivors, and an understanding of the health consequences of human rights abuses, their local implications, and strategies to address them at the population health level. This curriculum explored the multidimensional health challenges faced by asylum seekers, introduced students to the strategies for accessing available health and social service resources for asylees, and prepared students to facilitate caring for survivors and documenting their physical and psychological sequelae for

the purpose of legal affidavits during asylum seeking process. Students were encouraged to discuss policy and advocacy options to improve the health of a frequently ignored population in the interface of public health and law.

Through a didactic lecture series, comprehensive reading assignments, case presentations, panel discussions with survivors, and a final paper assignment, participating public health students were expected to achieve specific learning objectives and competencies as presented in the Appendix (Online Resource 1) (ASPH 2006; Association of Schools of Public Health 2014; Emory et al. 2014).

The Istanbul Protocol, personal experience, and extensive research informed the content and format of the curriculum (Asgary et al. 2006; Istanbul Protocol 2004). The curriculum director had extensive experience working with refugee populations nationally and internationally, received formal training in evaluating asylum seekers and documenting torture, and provided health services to hundreds of asylum seekers while working with non-governmental organizations. The curriculum syllabus is presented in Table 1.

Students were expected to write a paper addressing the healthcare challenges of torture survivors from the medical, social, political, or cultural aspect at the population level. These papers formed the basis of individual class presentations. Final papers were expected to include: statement of the problem related to asylum seekers' health; presentation and discussion of all relevant aspects from different points of view (with citations); and conclusions that related to student's own analysis and stemmed from the discussion.

Curriculum evaluation

Three approaches were used to assess curriculum impact including (a) pre- and post-curriculum knowledge, attitude, and self-efficacy assessment, (b) formal curriculum evaluations, and (c) final papers and oral presentations.

Final curriculum evaluations were administered to all students who took the curriculum approximately 1 week after the final session of curriculum. Electronic curriculum evaluations were available from the past 4 years ($n = 57$). Evaluations included multiple-choice or Likert Scale questions evaluating both the components and presentations of the curriculum. To objectively assess students' performance, anonymous pre- and post-curriculum surveys were administered to students in the last 2 years of the curriculum. Only students who completed the curriculum were offered and completed the post-curriculum survey, which was administered at the end of the curriculum. Surveys covered five main domains: (a) knowledge of professional and ethical codes, policies, and advocacy initiatives regarding human rights abuses,

Table 1 Curriculum topics and syllabus in the healthcare of refugee asylum seekers and clinical human rights for graduate public health students, United States, 2005–2011

Curriculum topics	Objectives	Methods
Definitions, epidemiology and demographics of torture	To describe and identify the asylum seekers and torture definitions and countries of origin and destination for asylees worldwide	Lecture Interactive discussion Icebreakers
Social and political context of torture	To describe and identify social and political context of abuse/torture and describe examples	Lecture Interactive discussion
Legal aspect of asylum in the United States	To describe and identify United States asylum laws and regulations	Interactive discussion Lecture
Physical sequelae of torture and human rights abuse	To describe and identify the common physical consequences of abuse and torture)	Photo slides Personal stories Lecture/clinical cases
Experiences from human rights abuse survivors	To describe a population of torture survivors in New York City	Lecture Photo slides Audio interviews
Interview techniques, case presentations, photography of scars	To list and describe the elements of proper interview and case presentation of asylees	Lecture Group discussion Audio interviews Clinical cases
Barriers to access healthcare among affected populations	To identify and describe the common barriers in health access among refugee asylees	Lecture
Psychological sequelae of torture, including sexual abuse sequelae	To list and describe common form of psychological torture and their consequences	Lecture Audio interview Clinical cases
Asylees experience	To identify and describe skills needed to effectively communicate with asylees including language and cultural sensitivity	Panel of asylees Question and answer, group sessions
Advocacy organizations, advocacy opportunities	To describe the common elements of advocacy and advocacy organizations in health and human rights	Panel discussion Lecture
Role of health professionals and providers in human rights abuses	To describe, and provide examples of, the role of practitioners in torture and human rights abuses	Lecture Case studies
Child labor and sex trafficking	To describe and identify features of sex trafficking, child labor worldwide, and domestic implications	Lecture
Student presentations and final class discussions	To describe and identify the elements of a presentation and learn to interactively discuss the relevant topic related to policy or advocacy initiatives	Power point presentation Group discussion

(b) knowledge about the demographics and common types/methods of abuse, and international and US asylum and human rights laws, (c) knowledge of the physical and psychological sequelae of abuse, (d) attitudes and perceptions regarding working with asylum seekers and survivors, and (e) skills to assess survivors' health care needs and advocate on their behalf. The survey questionnaire included multiple-choice questions, selecting one best answer or multiple correct answers, as well as open Likert Scale questions. Data were collected electronically with secure web-based survey software and

sorted and analyzed using Microsoft Excel 14.0.0 and SPSS 20.0. Parametric or nonparametric statistical tests were performed when appropriate with measuring mean composite scores within groups (comparing students before and after). Statistical significance was assumed at a $P < 0.05$. Cronbach's alpha was used as a measure of internal reliability and consistency for questions posed on a Likert scale (attitude and skill questions). All values of Cronbach's alpha showed acceptable internal consistency (>0.7). This study received the Institutional Review Board approval.

Results

Overall more than 125 students participated in the curriculum starting in 2005. Post-curriculum evaluations were available for 57 students (2008–2011). Formal pre- and post-curriculum evaluations were initiated and employed in years 2010 and 2011 (34 students). Baseline characteristics of students as well as some individual pre- and post-curriculum questions regarding knowledge, attitude and self-efficacy are presented in Table 2.

After completion of the human rights curriculum, participants demonstrated improvement from baseline in two key educational domains, including attitude change and self-efficacy. Specifically, masters of public health (MPH) students without any medical background showed improved ability to identify common types of physical maltreatment and identify populations at risk for a history of torture. The results of pre- and post-curriculum evaluation of students' attitude, and self-efficacy are presented in Table 3. Unpaired analysis is presented for all enrolled students including students with medical background such as residents and medical students. Paired *t* test analysis includes masters in public health students without any medical background.

Final curriculum evaluations were available from students ($n = 57$) enrolled in the last 4 years of the curriculum and are presented in Table 4.

Discussion

This study demonstrates the feasibility and efficacy of a population-specific human rights curriculum for public health students. By improving knowledge, attitude and self-efficacy regarding healthcare of asylum seekers from socio-cultural, political, legal and medical aspects, this curriculum provided a domestic opportunity for building skills in global public health practice, policy, advocacy and cultural competency. Despite having limited human rights experience prior to enrollment in this curriculum, participating public health students showed significant improvement in attitude and self-efficacy domains and improved knowledge, including identifying common types of maltreatments and the populations at risk for human rights abuse. Improved knowledge and comfort regarding evaluation and interviewing survivors of abuse, the process of medico-legal affidavits, and understanding the psychological effects of abuse have several important implications for future public health practitioners. First, and most importantly, the ability to identify populations at risk and understand and evaluate their health care needs would allow to more effectively connect survivors to existing appropriate medical, social, legal or community services.

Second, by aspiring to develop the right attitudes and building necessary skills, public health practitioners could help shed light onto the lives of this marginalized population and ultimately help to improve health promotion and disease prevention programs specific to their needs. Improved attitudes and skills among public health practitioners would likely lead to better identification of internal and external health system problems affecting health care delivery for this population, and empower the public health system to mitigate these challenges and improve health services. By incorporating didactic sessions, personal narratives, panel discussions and asylum evaluations into the curriculum, this curriculum provided a platform for cross-cultural experience that helped illustrate the impact of effective communication across cultural, linguistic, and sociopolitical barriers.

Global health has received significant attention and emphasis in public health schools (Gebbie et al. 2003). However, much of experiential global health education occurs abroad: students participate in programs abroad and learn the healthcare challenges and disparities in access faced by most of the world population (Panosian and Coates 2006; Drain et al. 2007; Godkin and Savageau 2003). Domestic opportunities, however, are often overlooked, including the immigrant and refugee population, which represents close to 12 % of the United States population (US Census Bureau 2009), providing viable domestic global health opportunities in the US. This curriculum's unique approach of using a population case-based focus on health and human rights highlights the process by which geopolitical, social, and culturally specific determinants of health intersect across local, national, and global public health systems. The increased desire among the curriculum participants to be engaged in global health careers and human rights work suggests that practical global health training opportunities in a domestic context may help to build a global health corps using local resources (Asgary 2013a, b). Increasingly, students in health sciences are interested in issues of the rights to health, social responsibility, and social justice in the context of global health (Farmer 2005). This curriculum aimed to provide students with appreciation of social determinants of health (O'Neil 2006; Parsi and List 2008), and helped them better recognize the sociopolitical context of their communities' and patients' illnesses that reaches beyond international borders. From the public health ethics and human rights perspectives, access to healthcare among asylum seekers depends on the characteristics of the health system and its accessibility, and societal views towards the rights to health and rights of minorities in a multicultural society (McNeill 2003; Ashcroft 2005; François et al. 2008). Well-informed, sensitized, and prepared public health practitioners could help build important bridges

Table 2 Baseline characteristics of graduate public health students and their knowledge, attitude, and self-efficacy changes pre- and post-curriculum, United States, 2010–2011

Current level of training ($n = 34$)	Solely MPH: 53.1 % (17) MD student: 18.8 % (6) Combined MD and MPH student: 6.3 % (2) Resident: 15.6 % (5) Faculty/fellow: 6.2 % (2) Unknown: 6.2 % (2)
Age ($n = 32$)	M: 28.19 years SD: 8.13
Sex ($n = 32$)	Female: 75 % (24)
Birthplace ($n = 34$)	International: 29.4 % (10) US: 67.6 % (23) No response: 2.9 % (1)
Spending time in developing countries ($n = 34$)	No: 32.4 % (11) Yes (not specific): 23.5 % (8) Yes, growing up: 8.8 % (3) Yes: volunteering: 23.5 % (8) Yes, working: 17.6 % (6) Yes, traveling: 29.4 % (10) None: 26.5 % (9)
Time have you spent in developing countries: ($n = 34$)	Limited: 29.4 % (10) Moderately: 20.6 % (7) Significantly: 23.5 % (8) Yes: 44.1 % (15) No: 55.9 % (19)
I have met/personally know a person with a known history of torture in any capacity ($n = 34$)	Yes: 50 % (17), no: 23.5 % (8) No response: 26.5 %
I have met/personally know a person with a history of domestic abuse/sexual abuse/psychological abuse in the United States ($n = 25$)	Yes: 32.4 % (11)
Prior human rights training ($n = 34$)	Undergraduate: 17.6 % (6) Graduate school: 8.8 % (3) Medical school: 2.9 % (1) Internship/residency: 5.9 % (2) A non-medical, paid: 5.9 % (2) A volunteer: 11.8 % (4) Other: 5.9 % (2)
My prior experience with human rights training occurred during	None: 73.5 % (25) Minimal (1–2 times): 17.6 % (6) Moderate (3–10 times): 2.9 % (1) Significant (10+ times): 5.8 % (2)
Previous professional experience with torture survivors or asylees is the best described as	None: 8.8 % (3) Minimal: 52.9 % (18) Moderate: 38.2 % (13) Significant: 0 %
(pre) Rate your overall knowledge in human rights topics and issues	Primary care: 52.9 % (18) Public health: 79.4 % (27) Global health: 70.6 % (24) Non-primary care: 8.8 % (3)
(pre) Rate your current level of interest in pursuing a career in each of the following fields	None/no response: 4.8 % (2) Minimal: 14.7 % (5) Moderate: 41.2 % (14) Significant: 38.2 % (13)
(pre) Rate your desire to be involved in human rights work in the future	

Table 2 continued

After participating in Health and Human Rights (HHR) curriculum how much has your overall knowledge in human rights topics/issues changed: Likert Scale [significantly decreased (1), decreased (2), no change (3), increased (4), significantly increased (5)]	M: 4.2, SEM: 0.07, <i>n</i> : 30	
After your participation in HHR curriculum, level of change in your interest/desire in pursuing your future career in the following areas: Likert Scale [significantly decreased (1), decreased (2), no change (3), increased (4), significantly increased (5)]	Primary care: M: 3.59, SEM: 0.12 Public health: M: 4.07, SEM: 0.13 Global health: M: 4.03, SEM: 0.14 Non-primary, non-global health: M: 3.18, SEM: 0.12	
After participation in HHR curriculum how much has your desire to be involved in human rights work in the future changed? Likert Scale [significantly decreased (1), decreased (2), no change (3), increased (4), significantly increased (5)]	M: 4.03, SEM: 0.09, <i>n</i> : 30	
(pre) I understand the psychological effects of torture: Likert Scale [strongly agree (5), somewhat agree (4), neither (3), somewhat disagree (2), strongly disagree (1)]	M: 3, SEM: 0.29, <i>n</i> : 31	
After your participation in HHR curriculum, how has your understanding of psychological effects of torture changed: Likert Scale [significantly decreased (1), decreased (2), no change (3), increased (4), significantly increased (5)]	M: 4.18, SEM: 0.1, <i>n</i> : 28	
(pre) I am concerned about being manipulated by clients lying to seek asylum: Likert Scale [strongly agree (5), somewhat agree (4), neither (3), somewhat disagree (2), strongly disagree (1)]	M: 2.55, SEM: 0.18, <i>n</i> : 33	
(post) How much has your concern about being manipulated by clients lying to seek asylum changed: Likert Scale [significantly decreased (1), decreased (2), no change (3), increased (4), significantly increased (5)]	M: 3.16, SEM: 0.21, <i>n</i> : 25	
(pre) I am relatively comfortable with interviewing skills to evaluate torture survivors: Likert Scale [strongly agree (5), somewhat agree (4), neither (3), somewhat disagree (2), strongly disagree (1)]	M: 2.38, SEM: 0.28, <i>n</i> : 21	
(post) How much has your relative comfort level with interviewing skills to evaluate torture survivors changed: Likert Scale [significantly decreased (1), decreased (2), no change (3), increased (4), significantly increased (5)]	M: 3.81, SEM: 0.15, <i>n</i> : 26	
I know the important aspects of gathering information for evaluation of survivors: Likert (pre versus post) Scale [strongly agree (5), somewhat agree (4), neither (3), somewhat disagree (2), strongly disagree (1)]	M: 2.55 SEM: 0.29 <i>n</i> : 20	M: 4.29 SEM: 0.11 <i>n</i> : 17
I have knowledge of a medico-legal affidavit: (pre versus post) Likert Scale [strongly agree (5), somewhat agree (4), neither (3), somewhat disagree (2), strongly disagree (1)]	M: 1.85 SEM: 0.21 <i>n</i> : 20	M: 4.14 SEM: 0.12 <i>n</i> : 22

MD Doctor of Medicine students, *MPH* Masters of Public Health students without medical background, *M* mean, *SEM* standard error of mean, *n* number

across overarching sociopolitical barriers to assure societal values will translate into humane treatment and services for survivors. In general, there may be a disconnect between priorities, expectations and competencies for the trainees in schools of public health and the real world needs in public health practice (Vukovic et al. 2014; Paccaud et al. 2013). Competency framework for good governance for planning professional training in public health both in academia and health system settings should not be overlooked (Bertoncello et al. 2015). This specific curriculum addressed leadership and advocacy competencies in public health by creating a setting in which trainees could witness effective collaboration between academia and non-governmental or grass-root organizations that identified and referred asylum seekers to healthcare providers, as well as advocacy activities in the intersection of public health, medicine,

legal system, and grassroots organizations. As a cross-cultural experience, this curriculum underscored the importance of cultural competency skills early in public health training and helped students recognize the impact of language and cultural barriers to healthcare access. This curriculum targeted a very vulnerable population with low social resources, which provided a unique opportunity for students to witness first-hand the multi-level barriers faced by immigrants and refugees and to understand the interplay between systems and individual and provider level barriers. This experience will likely help public health students to better identify and address barriers to health care among other vulnerable populations such as racial and ethnic minorities, individuals of different sexual orientations, and the poor and underserved. Much of human rights education in public health schools is generally limited to solely

Table 3 Pre- and post-curriculum survey results of all graduate public health students (unpaired) and graduate public health students with no medical background (paired *t* test) for main educational domains, United States, 2010–2011

	All public health students			Public health students with no medical background		
	Pre-test	Post-test	Unpaired <i>t</i> test	Pre-test	Post-test	2-tailed paired <i>t</i> test
Knowledge	M: 2.63	M: 4.38	$P < 0.001$	M: 2.56	M: 4.56	$P < 0.0001$
I know the common types of physical maltreatment used in torture	SEM: 0.24 <i>N</i> : 32	SEM: 0.09 <i>N</i> : 29		SEM: 0.35 <i>N</i> : 16	SEM: 0.13 <i>N</i> : 16	
Attitude	M: 2.68	M: 3.5	$P < 0.007$	M: 2.65	M: 3.59	$P < 0.01$
I am relatively comfortable using the diagnostic criteria for PTSD or depression	SEM: 0.23 <i>N</i> : 34	SEM: 0.18 <i>N</i> : 30		SEM: 0.34 <i>N</i> : 17	SEM: 0.27 <i>N</i> : 17	
Self-efficacy	M: 2.35	M: 3.9	$P < 0.0001$	M: 2.59	M: 4.06	$P < 0.0001$
I know how to identify the population at risk for a history of torture	SEM: 0.18 <i>N</i> : 34	SEM: 0.12 <i>N</i> : 30		SEM: 0.29 <i>N</i> : 17	SEM: 0.16 <i>N</i> : 17	

Likert scale: Strongly agree (5), somewhat agree (4), neither (3), somewhat disagree (2), strongly disagree (1)

M mean, *SEM* standard error of mean, *n* number

Table 4 Final curriculum evaluations from all public health students (*n* = 57), United States, 2005–2011

Likert scale: poor (1), fair (2), good (3), very good (4), outstanding (5) <i>M</i> mean, <i>SEM</i> standard error of mean, <i>n</i> number	Overall rating for the curriculum	M: 4.23, SEM: 0.12
	How well did the curriculum meet the outlined curriculum objectives and overview materials?	M: 4.12, SEM: 0.11
	Was the material presented at an appropriate level of expertise? (<i>n</i> = 21)	M: 4.29, SEM: 0.17
	Were reading assignments relevant? (<i>n</i> = 39)	M: 4.13, SEM: 0.12
	How well did the Curriculum Director(s) demonstrate competency in field?	M: 4.6, SEM: 0.09
	Was the subject comprehensible? (<i>n</i> = 39)	M: 4.44, SEM: 0.11
	How useful were class discussions?	M: 3.98, SEM: 0.11
	Rate degree to which the curriculum broadened your knowledge? (<i>n</i> = 39)	M: 4.49, SEM: 0.11
	Likelihood that you would take further curricula in a similar subject area? (<i>n</i> = 20)	M: 4, SEM: 0.22
	Rate how well you attained the competencies outlined in the curriculum syllabus (<i>n</i> = 36)	M: 4.03, SEM: 0.14

didactic sessions or sporadic exposures via talks or conferences. This curriculum built on the concept of human rights literacy as it applies to global public health challenges faced by the refugee population. It helped students put human rights skills building into practice at the intersection of public health practice, human rights education, and global health. While public health professionals are not directly providing healthcare or evaluation of asylum seekers, they are positioned well to direct them to proper social, health and community resources and further evaluate and help increase social resources and social capital, if they are equipped with necessary attitude and skills. Advocacy and political actions are perhaps at the heart of public health interventions and practice (McNeill 2003), and this curriculum aimed to shed light onto this important aspect of public health training through the lens of asylum seeker populations. Broader advocacy actions at sociopolitical levels are important and the health professionals,

including public health practitioners, have ethical obligations to take advocacy action on cases of human rights abuses (McNeill 2003; Ashcroft 2005). Besides a responsibility to facilitate access to healthcare, public health practitioners could serve as agents of social change by raising awareness about the public health implications of inadequate healthcare for asylum seekers and helping to address the fundamental conditions that contribute to survivors' poor health status.

This study is not without limitations. The curriculum primarily aimed to install the appropriate attitudes, meaning that students would be more likely in their future careers to help survivors and asylum seekers. Self-efficacy evaluations were important components and may have been prone to social desirability bias. Additional skills, however, were objectively evaluated through final paper assignments and class presentations. While there were representatives from advocacy organizations participating

in panel discussions or giving talks, field trips to advocacy or grass-root organizations and participation in legal proceedings could have provided more tangible experiences and should be considered. Not all students completed evaluations, and therefore the sample size for many questions and evaluations were not adequate, which may have been a reason why most knowledge components did not significantly change after participation in the curriculum. Since the main themes of the curriculum were built around attitude and skills building, there was no emphasis on evaluating knowledge retention and there was no final exam. While the curriculum topics covered a broad range of competencies, important topics including the plight of pregnant refugee asylum seekers (Saulnier and Brolin 2015) and injury and rehabilitation (Smith et al. 2015) were not captured, which should be considered when designing future curricula. This curriculum was unique in that it had a practical and real world exposure to the concept of human rights abuses and sequelae of maltreatment in the public health training. Other similar curriculums have a more theoretical approach with purely international focus, or are policy oriented and not population specific. Through case presentations, photo slides, audio recordings of evaluating asylum seekers, clinical opportunities and panel discussions with survivors, the curriculum provided public health students with tangible exposure to actual survivors and their psychosocial and physical evaluations.

Conclusions

Annually, millions of refugee asylum seekers flee their countries of origin due to war, political upheaval, persecution and human rights abuses. Public health professionals have an ethical obligation and moral responsibility to identify and address their healthcare needs. Adequately trained and sensitized public health professionals could be well positioned to engage more effectively in the evaluation of refugee asylum seekers, and connect them to adequate social, community, and health resources. Considering the recent mass influx of refugees from war-torn areas such as Syria, Afghanistan and Iraq, there is even more urgency for advocacy and cultural-competency training in public health practice to better address the healthcare of survivors of war trauma and human rights abuse. Local resources and population-based domestic opportunities to teach global health, human rights and refugee health could be effectively utilized to provide public health students with valuable knowledge and skills, address cross-cultural issues of practicing public health in the globalized environment, and prepare students to better identify and provide care for other vulnerable populations, thus developing a well-equipped global public health corps.

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Compliance with ethical standards

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Conflict of interest The author reports no declarations of interest.

Ethical standard This study received the Institutional Review Board approval from the Icahn School of Medicine, New York.

References

- American College of Physicians (1995) The role of the physician and the medical profession in the prevention of international torture and in the treatment of its survivors. *Ann Intern Med* 122(8):607–613
- Amnesty International (2012) Amnesty International Report. http://files.amnesty.org/air12/fnf_air_2012_en.pdf. Accessed 16 Aug 2014
- Asgary R (2013a) A call to teach medical students clinical human rights. *Acad Med* 88(3):298–299
- Asgary R (2013b) Bringing global health and global health education home. *Acad Med* 88(7):908
- Asgary R, Segar N (2011) Barriers to health care access among refugee asylum seekers. *J Health Care Poor Underserved* 22(2):506–522
- Asgary RG, Metalios EE, Smith CL, Paccione GA (2006) Evaluating asylum seekers/torture survivors in urban primary care: a collaborative approach at the Bronx Human Rights Clinic. *Health Hum Rights* 9(2):164–179
- Asgary R, Charpentier B, Burnett DC (2013a) Socio-medical challenges of asylum seekers prior and after coming to the US. *J Immigr Minor Health* 15(5):961–968
- Asgary R, Saenger P, Jophlin L, Burnett D (2013b) Domestic global health: a curriculum teaching medical students to evaluate refugee asylum seekers and torture survivors. *Teach Learn Med* 25(4):348–357
- Ashcroft RE (2005) Standing up for the medical rights of asylum seekers. *J Med Ethics* 31(3):125–126
- Association of Schools of Public Health (2014) Competencies, learning outcomes, and critical educational elements. <http://www.asph.org/document.cfm?page=1083>. Accessed 14 Nov 2014
- Association of Schools of Public Health Education Committee (2006) Master's degree in public health core competency model, version 2.3. ASPH, Washington
- Basoglu M (1993) Prevention of torture and care of survivors. an integrated approach. *JAMA* 270(5):606–611
- Bertoncello C, Buja A, Silenzi A, Specchia ML, Franchino G, Lazzari A, Baldo V, Ricciardi W, Damiani G (2015) Good governance competencies in public health to train public health physicians. *Int J Public Health*. 60(6):737–749
- Bischoff A, Bovier PA, Rustemi I, Gariazzo F, Eytan A, Loutan L (2003) Language barriers between nurses and asylum seekers: their impact on symptom reporting and referral. *Soc Sci Med* 57(3):503–512
- Carinci AJ, Mehta P, Christo PJ (2010) Chronic pain in torture victims. *Curr Pain Headache Rep* 14(2):73–79

- Drain PK, Primack A, Hunt D, Fawzi WW, Holmes KK, Gardner P (2007) Global health in medical education: a call for more training and opportunities. *Acad Med* 82:226–230
- Emory KW, Evans D, Stephenson R, Del Rio C, Curran JW (2014) Incorporating global health competencies into the public health curriculum. *Public Health Rep* 129(2):203–208
- Farmer P (2005) Pathologies of power: health, human rights, and the new war on the poor. University of California Press, London
- François G, Hambach R, van Sprundel M, Devillé W, Van Hal G (2008) Inspecting asylum seekers upon entry—a medico-ethical complex. *Eur J Public Health* 18(6):552–553
- Gebbie K, Rosenstock L, Hernandez LM (eds) (2003) Who will keep the public healthy? Educating public health professionals for the 21st century. National Academies Press, Washington
- Godkin M, Savageau J (2003) The effect of medical students' international experiences on attitudes toward serving underserved multicultural populations. *Fam Med* 35(4):273–278
- Heisler M, Moreno A, DeMonner S, Keller A, Iacopino V (2003) Assessment of torture and ill treatment of detainees in Mexico: attitudes and experiences of forensic physicians. *JAMA* 289(16):2135–2143
- Istanbul Protocol (2004) UN Office of High Commissioner for Human Rights, Manual on Effective Investigation and Documentation of Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (IP). <http://www.ohchr.org/documents/publications/training8rev1en.pdf>. Accessed 11 Feb 2014
- McNeill PM (2003) Public health ethics: asylum seekers and the case for political action. *Bioethics* 17(5–6):487–502
- O'Neil E (2006) Awakening hippocrates: a primer on health, poverty, and global service. AMA Press, Chicago, US
- Paccaud F, Weihofen A, Frank M (2013) Public health workforce in Switzerland: are public health workers lacking? *Int J Public Health* 58(6):799–800
- Padder FA (1995) Human rights and the medical profession. *Ann Intern Med* 123(8):636
- Panosian C, Coates TJ (2006) The new medical “missionaries”—grooming the next generation of global health workers. *N Engl J Med* 354(17):1771–1773. doi:10.1056/NEJMp068035
- Parsi K, List J (2008) Preparing medical students for the world: service learning and global health justice. *Medscape J Med* 10(11):268
- Piwowarczyk L, Keane TM, Lincoln A (2008) Hunger: the silent epidemic among asylum seekers and resettled refugees. *Int Migr* 46(1):59–77
- Saulnier DD, Brolin K (2015) A systematic review of the health effect of prenatal exposure to disaster. *Int J Public Health*. Aug 23. doi:10.1007/s00038-015-0699-2
- Smith J, Roberts B, Knight A, Gosselin R, Blanchet K (2015) A systematic literature review of the quality of evidence for injury and rehabilitation interventions in humanitarian crises. *Int J Public Health*. Aug 23. doi:10.1007/s00038-015-0723-6
- Sonis J, Gorenflo DW, Jha P, Williams C (1996) Teaching of human rights in US medical schools. *JAMA* 276(20):1676–1678
- The Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (the “Torture Convention”) (1984) UN General Assembly. <http://untreaty.un.org/cod/avl/ha/catcidtp/catcidtp.html>. Accessed 11 Feb 2014
- United Nation High Commissioner for Refugees (UNHCR) (2010) Statistical Yearbook, Chapter 2. <http://www.unhcr.org/4ef9c7849.html>. Accessed 15 Nov 2014
- United States Census Bureau (2010). <http://www.census.gov/prod/2010pubs/acsbr09-15.pdf>. Accessed 11 Feb 2014
- Vorbrüggen M, Baer HU (2007) Humiliation: the lasting effect of torture. *Mil Med* 172(12 Suppl):29–33
- Vukovic D, Bjegovic-Mikanovic V, Otok R, Czabannowska K, Nikolic Z, Laaser U (2014) Which level of competence and performance is expected? A survey among European employers of public health professionals. *Int J Public Health* 59(1):15–30
- Wenzel T (2007) Torture. *Curr Opin Psychiatry* 20(5):491–496
- Wenzel T, Griengl H, Stompe T, Mirzaei S, Kieffer W (2000) Psychological disorders in survivors of torture: exhaustion, impairment and depression. *Psychopathology* 33(6):292–296
- Wong EC, Marshall GN, Schell TL et al (2005) Barriers to mental health care utilization for US Cambodian refugees. *J Consult Clin Psychol* 74(6):1116–1120