



The Presence and Profile of Neurological Conditions and Associated Psychiatric Comorbidities in U.S. Resettled Refugees: A Retrospective Single Center Study

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Abstract

Refugees are a vulnerable, growing population who confront a myriad of traumas leading to their forced migration. Although psychiatric illnesses of resettled refugees are well-documented, there is a paucity of studies characterizing their neurological disease profiles. This study aimed to characterize the frequency and range of neurological disorders in a sample of resettled refugees receiving care at a community health center in Massachusetts, U.S.A. We performed a retrospective medical record review of adult (≥ 18 years) resettled refugees between May 2001 and December 2012 at a community health center in Northeast Massachusetts. Sociodemographic and clinical characteristics pertaining to neuropsychiatric health were collected from medical records using a standardized data extraction tool. Group comparisons between those with and without neurological illness and associated sociodemographic and psychiatric characteristics were evaluated using χ^2 and independent samples two-tailed *t*-tests. In our sample ($n = 779$), 53.3% ($n = 415$) were male and 48.8% ($n = 380$) were from the African continent. The mean age was 33.2 ± 12.4 years (range 18–85). 36.8% were diagnosed with at least one neurological disorder and 18.1% with more than one neurological illness. The most common diagnoses were headaches (28.3%), sleep disorders (11.2%), cognitive impairment/ dementia (5.5%), and head trauma (5.5%). Exploratory analyses revealed that participants with neurological illness were more likely to be older ($p < .001$), female ($p = .002$), and diagnosed with co-morbid psychiatric diagnoses ($p < .001$) than those without neurological illness. Neurological disorders frequently co-occur with psychiatric comorbidities among U.S. resettled adult refugees. Standard refugee health assessments should incorporate screening and treatment for neurological illnesses.

Keywords Refugee health · Neurology · Health disparity · Migration

Introduction

The United Nations High Commissioner for Refugees estimates that 89.3 million people were forcibly displaced due to persecution, violence, and human rights violations worldwide between 1991 and 2021 [1]. Among them, 27.1 million

individuals are formally recognized as refugees [1] per the criteria outlined in the 1951 Refugee Convention and its 1967 Protocol, i.e. individuals who cannot return to their homeland due to a well-founded fear of persecution and protected by international refugee law. Existing literature has highlighted significant disparities in health service access and utilization between refugees and immigrants compared to host populations [2–5]. This can be attributed to a complex continuum of experiences prior to migration (e.g., war-related injuries, sexual assault, or torture), during unsafe and stressful migratory journeys (e.g., malnutrition, dehydration, or human trafficking), and following migration (e.g., hazardous working conditions, discrimination, or stigmatization) [6, 7].

Refugees may be at a heightened risk of developing neurological disorders than non-refugee groups due to their unique experiences across this spectrum of migration-related

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experiences. For instance, refugees subject to torture may experience brain injury from blunt trauma or strangulation, or peripheral nerve injury from being restrained with handcuffs, shackles or rope [8, 9]. Throughout the migration journey, medical diagnoses may be delayed or unmet [10]. In the resettlement process, the disproportionate burden of acculturative stress, socioeconomic vulnerability, limited proficiency of the regional language, and medical mistrust can contribute to worsening health outcomes [8, 11]. Prior studies assessing neurological illness among refugees have identified diseases such as epilepsy, cerebrovascular disease, and headaches as common, but have predominantly focused on populations in refugee camps [12–14], or resettled populations in Europe [10, 15] or the Middle East [14, 16, 17]. We are aware of one prior study highlighting the disease burden of traumatic brain injury and headaches in U.S. asylum seekers [18] (those fleeing persecution like refugees, but without their claims yet adjudicated); however, limited literature exists otherwise on the epidemiology of neurological disorders in forcibly displaced populations resettled in the U.S.

On the other hand, there is broader recognition of the high burden of psychiatric illness in this population [19]; yet these often co-occur with or complicate diagnosis and recovery of neurologic illness that is less recognized. For example, post-concussive symptoms following traumatic brain injury may overlap with psychiatric symptoms associated with depression or PTSD. Mood disorders have been shown to be the most relevant psychiatric comorbidities associated with migraine, influencing its clinical course, treatment response, and clinical outcomes. Further, diseases like multiple sclerosis, neurodegenerative disease, and epilepsy have psychiatric phenotypes associated with underlying brain pathology. Therefore, understanding the epidemiology of neurological disorders, alongside associated psychiatric comorbidities, is an important step in better meeting the needs of resettled refugees, a growing and marginalized population.

This study aims to characterize the presence and profile of neurological disorders in a group of resettled refugees seeking care at a community health center in Massachusetts, U.S., as well as determine the sociodemographic and psychiatric characteristics associated with the presence of neurological illness.

Methods

Sample and Setting

We performed a retrospective medical record review at Massachusetts General Hospital (MGH) Chelsea Health-Care Center. Located in Eastern Massachusetts, the city of

Chelsea has an approximate population of 40,000, with the highest poverty rate (18.1%) [20] and the highest proportion of immigrants (45.4%) across the state [20]. As a designated refugee health assessment site, the health center provides clinical screenings for newly arrived refugees. Initial health assessments are required for all refugees following arrival as part of the U.S. resettlement process and prior to applying for legal permanent residency. The health center subsequently provides ongoing primary and specialist care as needed.

Data Collection

Patients were included in the study if they were connected to the health center as part of the refugee health assessment program between May 24, 2001 to December 26, 2012 and had at least one primary care visit at the health center. These represent the active dates of the refugee health program at the health center, during which patients' refugee status was collected in a separate database that we linked to the electronic medical records. Refugee status is not otherwise systematically collected in electronic medical records. All patients included in the study had been formally issued a refugee status designation by the U.S. Citizenship and Immigration Services. Patients younger than 18 years of age were excluded. The retrospective review of medical records was completed using a standardized data extraction tool capturing sociodemographic information and clinical characteristics relating to neuropsychiatric health from the first and last visits of eligible patients up to February 5th, 2021 (Table 1). The data extraction tool was informed by ICD-10 codes for neurological disorders to capture the range of possible neurological disorders. The patient was listed as having the diagnosis if made by the primary care physician.

Statistical Analysis

The study was descriptive, and no hypothesis testing was performed. Following descriptive analysis, we evaluated associations using independent samples two-tailed *t*-tests (for continuous variables) and χ^2 -squared tests (for categorical variables) to compare sociodemographic and clinical characteristics between adults with neurological disorders and adults without as well as differences between genders (a *p* value of <0.05 was used for significance). All data analyses were performed using R v4.1.0.

Table 1 Summary of the data extraction tool

Neurological conditions	Traumatic brain injury or head trauma Cerebrovascular disease Stroke (ischemic or hemorrhagic) Headache disorder Subtype (tension, migraine, cluster headache, NOS) Cognitive syndrome Dementia Alzheimer's disease Other cognitive impairment or syndrome Neuro-infectious disease Meningitis/Encephalitis Epilepsy Movement disorder Subtype (Parkinson's disease, essential tremor, other) Sleep disorder Subtype (insomnia, obstructive sleep apnea, other) Other neurological disorder
Psychiatric conditions	Anxiety Depression PTSD Schizophrenia Bipolar disorder Other psychiatric disorder
Other clinical conditions	Smoking Alcohol use Substance use BMI Diabetes Hyperlipidemia Hypertension
Sociodemographic characteristics	Gender, age at cohort entry, country of origin, dates of first visit and last visit, religion, race/ethnicity, preferred language, year of arrival, marital status, number of children, employment status, education status, and insurance provider.

Standard Protocol Approvals, Registrations, and Patient Consents

All participants were de-identified for research purposes. The institutional review board of Massachusetts General Hospital approved this study.

Results

Demographics

In this sample ($n = 779$), most adults were young, with an average age of 33.2 years \pm 12.4 (median 30.0 years; range 18–85 years), and male (53.3%, $n = 415$). Refugee entry to the health center peaked in 2004 (13.4%), 2010 (10.7%), and 2012 (10.5%) (Fig. 1), reflecting state and nationwide trends in refugee admissions [21, 22]. The most common countries of origin were Somalia (17.3%), Iraq (15.9%), Bhutan (9.1%), and Eritrea (8.9%) and the

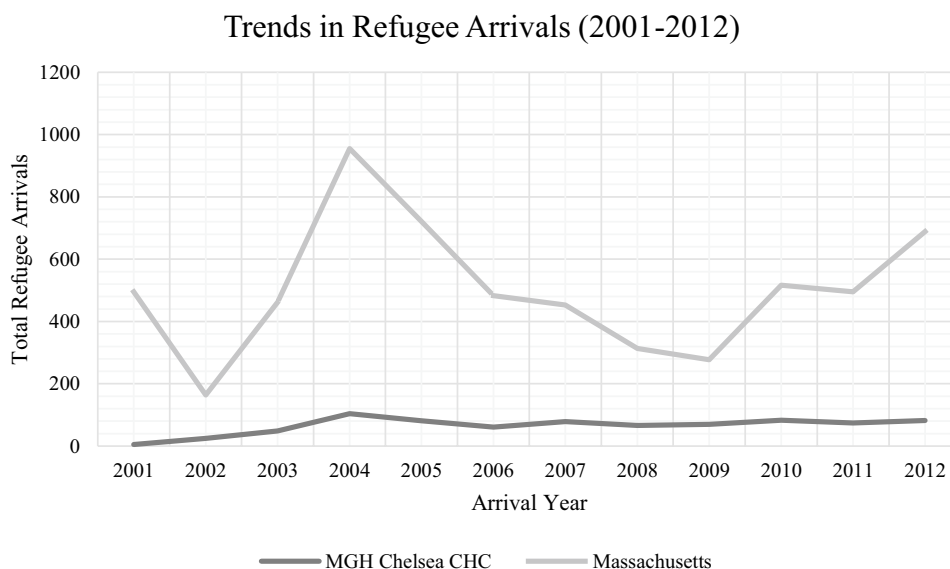
most common preferred languages were English (30.3%), Arabic (14.0%), and Somali (13.0%). The majority of patients were married (61.4%; $n = 478$) and had children (64.7%; $n = 491$). Women were less likely to be employed than men in the sample, but there was no significant difference in educational attainment by gender.

Nearly 40% (36.8%; $n = 287$) were diagnosed with at least one neurological disorder and 33.5% ($n = 261$) were diagnosed with at least one psychiatric disorder. Almost a third of men (31.3%; $n = 130$) were smokers, and more men than women reported alcohol or substance use ($p < .05$). On average, patients had been in care at the health center for 6.27 years (SD 5.45). A summary of patient sociodemographic and clinical characteristics can be found in Table 2.

Neurological Conditions and Associated Psychiatric Comorbidities

The most common neurological diagnoses were headaches (28.3%; $n = 221$), followed by sleep disorders (11.2%;

Fig. 1 Trends in annual admissions of U.S. resettled refugees



$n = 87$), cognitive impairments and dementia (5.5%; $n = 43$), and head trauma (4.9%; $n = 38$). Notably, 34.8% of head trauma cases were associated with cognitive impairment/dementia (Spearman's $\rho = 0.338$, $p < .001$). A summary of the neurological and psychiatric diagnoses can be found in Table 3.

The majority of patients with headaches were not documented to have a specific headache subtype (55.1%, $n = 125$). Among those who did have headache subtypes specified at any clinical encounter ($n = 221$), migraines and tension-type headaches were the most common (24.4%, $n = 54$; 19.9%, $n = 44$). Headaches were more common in women than men (36.5% vs. 22.7% respectively, $p < .001$). Among the 87 patients diagnosed with a sleep disorder, 73.6% ($n = 64$) were diagnosed with insomnia and 3.0% ($n = 23$) were diagnosed with obstructive sleep apnea. Among the 43 patients documented to have cognitive impairment, 79.1% ($n = 34$) did not have an underlying diagnosis and 16.3% ($n = 7$) were diagnosed with dementia.

Patients without neurological conditions were, on average, 6.1 years younger than patients with neurological conditions (30.9 ± 11.3 versus 37.0 ± 13.1 years respectively, $p < .001$) and were diagnosed with fewer comorbid psychiatric conditions ($p < .001$). Men were more likely to be diagnosed with a neurological condition than women ($p = .002$). Patients from the Middle East were more likely to be diagnosed with more than one neurological condition ($p < .001$) than patients from other countries of origin. There were no significant differences by race or ethnicity in rates of neurological illness ($p = .117$). Further details on comparisons between patients with and without neurological conditions can be found in eTable 1.

The most common psychiatric comorbidities were depression (25.4%; $n = 198$), anxiety (22.3%; $n = 174$), PTSD

(14.9%; $n = 116$), schizophrenia (1.5%; $n = 12$), and bipolar disorder (1.2%; $n = 9$). Men had fewer comorbid psychiatric conditions than women (14.0% vs. 27.7% respectively, $p < .001$).

Discussion

This study presents the presence and range of neurological illnesses in a group of U.S. resettled refugees from a single community health center. Over a third of participants were diagnosed with one or more neurological disorder(s) despite their relatively young age. Headache was the most common diagnosis identified in this sample, a finding consistent with previous studies in non-U.S. refugee populations [15, 23]. We observed a smaller proportion of cases of stroke and dementia relative to the general U.S. population [24], which likely reflects the younger age of the sample. Notably, however, risk factors for stroke were higher in this group relative to the U.S. general population, including diabetes (11.2% vs. 10.5%, [25]) and smoking (20.4 vs. 14.0% [26])—even higher among the men in the sample (31.3% vs. 20.8%, [26]). These findings are consistent with those of a previous cross-sectional study which reported a higher incidence of diabetes among U.S. resettled refugees relative to U.S.-born controls at the same center [27].

Our study contributes to the sparse literature regarding refugee neurological health. One study on Iraqi refugees reported a significant burden of neurological disorders, however the most common diagnoses were dorsalgia, headache, and epilepsy [14]. Another study aggregating data across multiple low- and middle-income countries reported that epilepsy was the most common diagnosis amongst adult refugees [13]. However, both studies focused on refugees in

Table 2 Study sample sociodemographic and clinical characteristics

	Total N (%)	Male N (%)	Female N (%)	<i>p</i> -value
	779	415 (53.3)	364 (46.7)	
Sociodemographic characteristics				
Age	33.2 ± 12.4	32.2 ± 11.9	34.3 ± 12.8	0.019
Race/Ethnicity	N = 767	N = 408	N = 359	0.288
Black	368 (48.0)	204 (50.5)	164 (46.1)	
White	189 (24.6)	92 (22.8)	97 (27.2)	
Asian	108 (23.4)	55 (13.6)	53 (14.9)	
Hispanic	46 (6.0)	22 (5.4)	24 (6.7)	
Other	56 (7.3)	35 (8.7)	21 (5.9)	
Region of origin	N = 779	N = 415	N = 364	0.134
Africa	380 (48.8)	215 (51.8)	165 (45.3)	
Middle East	172 (22.1)	93 (22.4)	79 (21.7)	
Asia Pacific	104 (13.4)	52 (12.5)	52 (14.3)	
Latin America	76 (9.8)	37 (8.9)	39 (10.7)	
Southern and Eastern Europe	47 (6.0)	18 (4.3)	29 (8.0)	
Religion	N = 687	N = 361	N = 326	0.163
Muslim	319 (46.4)	157 (43.5)	162 (49.7)	
Christian	277 (40.3)	160 (44.3)	117 (35.9)	
Hindu	65 (9.5)	31 (8.6)	34 (10.4)	
Other	26 (3.8)	13 (3.6)	13 (4.0)	
Educational attainment	N = 582	N = 329	N = 253	0.403
< High school	263 (45.2)	146 (44.4)	117 (46.2)	
High school	168 (28.9)	102 (31.0)	66 (26.1)	
> High school	151 (25.9)	81 (24.6)	70 (27.7)	
Employment status	N = 589	N = 319	N = 270	< 0.001
Currently or previously employed	451 (76.6)	285 (89.3)	166 (61.4)	
Insurance	N = 567	N = 299	N = 268	0.750
Public	406 (71.6)	212 (70.9)	194 (72.4)	
Private	136 (24.0)	72 (24.1)	64 (23.9)	
No insurance	25 (4.4)	15 (5.1)	10 (3.7)	
Marital status	N = 779	N = 415	N = 364	< 0.001
Married	478 (61.4)	232 (55.9)	246 (67.6)	
Children	N = 759	N = 403	N = 356	< 0.001
Yes	491 (64.7)	213 (52.9)	278 (78.1)	
Clinical characteristics				
Years in care	6.27 ± 5.45	5.82 ± 5.32	6.78 ± 5.55	0.014
BMI at baseline	N = 681	N = 366	N = 315	< 0.001
< 18.5	33 (4.8)	19 (5.2)	14 (4.4)	
18.5–24.9	329 (48.3)	192 (52.5)	137 (43.5)	
25.0–29.9	186 (27.3)	105 (28.7)	81 (25.7)	
≥ 30.0	133 (19.5)	50 (13.7)	83 (26.3)	
Alcohol or substance use	N = 779	N = 415	N = 364	< 0.001
Hypertension	198 (25.4)	151 (36.4)	47 (12.9)	
Hypertension	177 (22.7)	85 (20.5)	92 (25.3)	0.111
Smoking	159 (20.4)	130 (31.3)	29 (8.0)	< 0.001
Hyperlipidemia	118 (15.1)	60 (14.5)	58 (15.9)	0.566
Diabetes	87 (11.2)	39 (9.4)	48 (13.2)	0.094
Number of neurological diagnoses	N = 779	N = 415	N = 364	0.004
0	492 (63.2)	283 (68.2)	209 (57.4)	
1	146 (18.7)	72 (17.3)	74 (20.3)	

Table 2 (continued)

	Total N (%)	Male N (%)	Female N (%)	<i>p</i> -value
	779	415 (53.3)	364 (46.7)	
≥ 2 or more	141 (18.1)	60 (14.5)	81 (22.3)	
Number of psychiatric diagnoses	N=779	N=415	N=364	<0.001
0	518 (66.5)	317 (76.4)	201 (55.2)	
1	71 (9.1)	29 (7.0)	42 (11.5)	
≥ 2 or more	190 (24.4)	69 (16.6)	121 (33.2)	
Neurological condition with comorbid psychiatric condition(s)	159 (20.4)	58 (14.0)	101 (27.7)	<0.001

Table 3 Presence of Neurological and Psychiatric Conditions

	Total N (%)	Male N (%)	Female N (%)	<i>p</i> -value
	779	415	364	
Neurological conditions				
Headaches and craniofacial pain disorder	227 (29.1)	94 (22.7)	133 (36.5)	<0.001
Sleep disorder	87 (11.2)	39 (9.4)	48 (13.2)	0.094
Insomnia	64 (8.2)	27 (6.5)	37 (10.2)	
Obstructive sleep apnea	23 (3.0)	12 (2.9)	11 (3.0)	
Cognitive impairment	43 (5.5)	19 (4.6)	24 (6.6)	0.219
Memory impairment not specified	36 (4.6)	16 (3.9)	20 (5.5)	
Dementia	7 (1.0)	3 (0.7)	4 (1.1)	
Head trauma and TBI	43 (5.5)	26 (6.3)	17 (4.7)	0.331
Peripheral nerve disorder	25 (3.2)	10 (2.4)	15 (4.1)	0.176
Hearing and vision impairment	18 (2.3)	9 (2.2)	9 (2.5)	0.778
Epilepsy	12 (1.5)	6 (1.4)	6 (1.6)	0.819
Cerebrovascular disorder	12 (1.5)	6 (1.4)	6 (1.6)	0.819
Dizziness and vertigo	12 (1.5)	4 (1.0)	8 (2.2)	0.163
Movement disorder	11 (1.4)	6 (1.4)	5 (1.4)	0.932
Essential tremor	7 (0.9)	4 (1.0)	3 (0.8)	
Parkinson's disease	1 (0.1)	0 (0.0)	1 (0.3)	
Other	3 (0.4)	2 (0.5)	1 (0.3)	
Neuroinfectious disease	10 (1.3)	7 (1.7)	3 (0.8)	0.286
Meningitis/encephalitis	7 (0.9)	5 (1.2)	2 (0.5)	
Other	3 (0.4)	2 (0.5)	1 (0.3)	
Spinal cord disorder	8 (1.0)	3 (0.7)	5 (1.4)	0.369
Syncope	7 (0.9)	3 (0.7)	4 (1.1)	0.579
Functional neurological disorder	4 (0.5)	1 (0.2)	3 (0.8)	0.256
CNS tumour	2 (0.3)	2 (0.5)	0 (0.0)	0.185
Other	2 (0.3)	1 (0.2)	1 (0.3)	0.926
Psychiatric conditions				
Depression	198 (25.4)	71 (17.1)	127 (34.9)	<0.001
Anxiety	174 (22.3)	65 (15.7)	109 (29.9)	<0.001
PTSD	116 (14.9)	44 (10.6)	72 (19.8)	<0.001
Schizophrenia	12 (1.5)	8 (1.9)	4 (1.1)	0.349
Bipolar disorder	9 (1.2)	5 (1.2)	4 (1.1)	0.890

refugee camps in the Middle East, East Asia, and the African continent, who may have different neurological health needs as well as access to diagnostic testing to make neurologic

diagnoses relative to resettled refugees in the U.S. Further, on exploratory analysis, participants with neurological illness in our sample were significantly more likely to have

been connected to primary care, highlighting the importance of primary care in making neurological diagnoses or making referrals to specialist services when needed. In one study assessing disparities in neurological care, accounting for primary care mitigated some of the disparities in healthcare access [28]. The nature of referral patterns in refugee camps may differ to that in primary care health centers for resettled refugees in the U.S., skewing the disease burden away from neurological disorders which may be perceived as less urgent, severe, or amenable to treatment (e.g. concussions, functional neurological disorders) [29]. Further, access to primary care in the U.S. likely parallels access to diagnostic testing that may facilitate making neurologic diagnoses—testing that those in refugee camps or other lower resource settings may not have access to, thereby limiting diagnosing neurologic illness. Refugees that have not begun the resettlement process (e.g., those in refugee camps or those currently migrating) may also be at higher risk of experiencing food insecurity, overcrowded living quarters, poor sanitation, and poverty, all factors which may portend different consequences for their physical and mental health than those who have resettled.

With regards to psychiatric illnesses, we find that our sample had similar rates of depression, but lower rates of PTSD, to those reported in recent systematic reviews and meta-analyses focused on displaced populations [19, 30]. The co-occurrence of psychiatric disorders with neurological diagnoses in this population has clinical implications given that pre-existing psychiatric issues can complicate and lengthen recovery from neurological diseases [31]. There is potential for neurological disorders to go unrecognized and untreated in the clinical setting when there is overlap with psychiatric diagnoses (e.g. post-concussive symptoms following traumatic brain injury and PTSD) [32, 33]. This may be of particular importance among refugee populations where the focus has traditionally been on psychiatric diagnoses in isolation [19], although psychiatric illness can occur as a consequence of neurological illness and not just antecedent to, or co-occurring with. Indeed, one study focusing on refugees seeking acute neurological care in Germany found that most patients present with psychogenic non-epileptic seizures to the emergency department, emphasizing the need to consider the overlap of neurological and psychiatric illness in the care of refugee patients [14]. Of note, women were more likely to be diagnosed with a comorbid psychiatric condition than men, a finding in line with extant literature [34]. We recommend that resettled refugees undergo neurological screening as part of their initial health screening, especially if they have a psychiatric diagnosis. Conversely, as the relationship may be bidirectional, refugees diagnosed with a neurological disorder(s) should also be screened for psychiatric comorbidities, which is consistent with prior recommendations for general populations living

with neurological illness [32, 35]. Screening for neurologic illness alongside psychiatric comorbidities may have legal and societal implications above and beyond clinical ones, i.e., influencing the adjudication of an individual's asylum or refugee case, ability to obtain and maintain employment which can influence access to social services, and interactions within families and social networks [36–38].

Importantly, our findings cannot be extrapolated to other forcibly displaced populations, such as asylum seekers. Unlike refugees who have their refugee status determined prior to resettlement in the U.S., asylum seekers who similarly flee persecution arrive to the U.S. without their claims adjudicated. Existing literature has highlighted differences in clinical needs [39, 40] and poorer health service access and utilization rates [3] in asylum seekers relative to resettled refugees. Such trends have been associated with structural barriers such as lack of access to medical insurance, unemployment, and fragile legal status [41–43]. Psychological stress consequent to chronic uncertainty relating to their legal status has been shown to influence mental health outcomes [44]. Conversely, securing residency status has been reported to reduce adverse mental health symptoms [45]. There is an urgent need for comparative studies on the implications that these nuances have on the neurological health profiles of asylum seekers, relative to resettled refugees.

The results of this study should also be interpreted in light of methodological limitations. First, our data is from one health center and limited to years of data collection, and therefore may not be generalizable to other resettled refugee populations across the U.S. or internationally. For example, we know that certain refugee populations concentrate in ethnic enclaves in particular U.S. cities or states (e.g. Somali refugee populations in Minnesota [46]), different populations may see a higher or lower prevalence of certain neurological disorders as a result of the context of persecution they fled [29], or their migratory circumstances (e.g. Vitamin B12 deficiency among Bhutanese refugees [47]), and that the demographics and health profiles of the U.S. refugee population have shifted since this study's data collection. Future studies exploring the neurological disease profiles of refugee populations across U.S. and international-based settings, including current refugee populations, will bolster our understanding of true burden of neurologic disease in this population. Second, our study uses a primary care sample and health problems are often more prevalent in clinic-based samples that already have access to care. However, the U.S. refugee resettlement process requires all refugees to receive a medical screening shortly after arriving in the U.S., making it less likely that our sample underrepresents the presence of neurological illness in this group. Third, our study does not verify the accuracy of the diagnoses made in the electronic medical records, which is an inherent limitation of retrospective chart review studies, alongside variance in

information recorded by medical professionals. In this study, diagnoses were made by primary care physicians. It is possible that diagnoses may have changed should all patients had been seen by a neurologist. However, primary care providers provide more neurologic visits than neurologists in the United States [48], making this study clinically meaningful for a growing and underserved population.

Despite these limitations, this study is the first, to our knowledge, to characterize the spectrum of neurological illnesses among a sample of U.S. resettled refugees, representing a range of ethnicities and regions of origin. This work advances the current literature on the health of vulnerable populations, suggesting that screening for neurological and psychiatric conditions should be incorporated into standardized refugee health assessments. Future studies could longitudinally study the neurological profiles of resettled refugees to assess how age-associated disorders manifest over time, make comparisons to the local population including both U.S.-born and other immigrant groups, and expand need assessment to include need for diagnostic testing (e.g., imaging, serology) and specialty care (e.g., neuropsychology, neurology). Clinical efforts must focus on training neurologists, primary care physicians, and allied health professionals on the unique needs and challenges faced by resettled refugees inclusive of neurologic illness to improve equitable care and outcomes among all populations.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s10903-022-01409-6>.

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Data Availability Anonymized data will be made available to investigators upon reasonable request to the corresponding author.

Declarations

Conflict of interest The authors have no competing interests to declare that are relevant to the content of this article.

Ethical Approval This retrospective chart review study involving human participants was in accordance with the ethical standards of the institutional and national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. The Institutional Review Board (IRB) of Massachusetts General Hospital approved this study.

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