

Prevalence of torture and trauma history among immigrants in primary care in Denmark: do general practitioners ask?

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Background: Torture survivors typically present with varied and complex symptoms, which may challenge assessment by general practitioners (GPs). This study explored the prevalence of torture and trauma history among immigrants born in non-Western countries presenting to GPs in Denmark and the extent to which GPs ask this population about torture or trauma history. **Methods:** Based on a self-reported questionnaire among non-western immigrant patients, we used bivariate analyses to determine the prevalence of torture and trauma history and the proportion of patients being asked by their GP about this. Data were analysed using multivariate logistic regression. **Results:** From 46 GP clinics, 300 questionnaires were finalized by immigrant patients. Twenty-eight percent of the patients had a history of torture. Of these, significantly more were men (70%) than women (29%). About half of the torture survivors (55%) had been asked by their GP about torture history. The odds ratio (OR, 95% confidence interval) for being asked about torture history by the GP was 1.28 (0.46–3.53) among women compared with men. Compared with Southeast Europe, OR for being a torture survivor among male immigrants from Middle East-North African region and South and East Asia was 1.83 (0.81–4.15) and 0.25 (0.08–0.82), respectively. **Conclusions:** Our results suggest that torture and trauma are widespread among immigrants presenting to GPs. In our study, the GPs had managed to detect half of the torture survivors. A more systematic approach to detection in General Practice is advisable, and more knowledge on how and when to ask is needed.

Introduction

Amnesty International reported in 2015 that 122 countries tortured or ill-treated people,¹ despite attempts to ban torture and ill treatment, such as the United Nations Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (UNCAT).² Therefore, parts of the immigrants coming to Europe will have experienced torture or other forms of traumatic events in their country of origin or during their flight. Estimates on the overall prevalence of torture among immigrants and refugees range from 5% to 35%.³ In Denmark, a study of health status and prevalence of traumatization among newly arrived asylum-seekers showed that 45% had been exposed to torture and almost two-thirds of these met the criteria for post-traumatic stress disorder (PTSD).^{4,5} Physical and mental consequences of trauma and torture have a high impact on the ability to live a healthy life, form social relationships and have an occupational functioning in society.⁶ Early detection of torture or trauma history can therefore be crucial to limit symptoms as depression, anxiety, self-medication and enable individuals to contribute to the host society.^{7–9}

In Denmark, the healthcare system is tax-based and everyone who has been granted a residence permit has free access to the healthcare system, including most examinations and treatments. General practitioners (GPs) are often the first point of access to wider health care provision and can play an important role in early detection of torture and trauma survivors. However, survivors of torture typically present with varied and complex symptoms¹⁰ and

GPs may be treating torture survivors without recognizing it, and thereby not fully understand the background of their patients' symptoms and needs.

The occurrence of torture, trauma and PTSD among immigrant patients in general practice has been studied in the USA,^{11–13} which showed a prevalence of 6–11%. The studies also showed that most of the identified torture survivors had not been asked about torture history by their GP or other health care professionals since arrival in the USA.

However, prevalence in general practice in Denmark is unknown and to our knowledge no studies explore to what extent GPs in Denmark ask their immigrant patients about torture or other traumatic events.

The aim of this study was therefore to explore: (i) the prevalence of torture and trauma history among immigrants in primary care and (ii) the extent to which GPs ask this population about previous torture or trauma.

Methods

Study design and definitions

Data were collected from a convenience sample of immigrant patients born in non-Western countries seeking services in primary care from 1 July 2018 to 30 March 2019. GP clinics in the Capital Region and Region Zealand, Denmark, were invited to participate in the project by distributing a self-reported paper questionnaire

to relevant patients in the project period. These clinics were chosen as they were diverse in composition, which enabled a broad sampling, and because they were based in relatively immigrant dense regions.

Statistics Denmark's definition of non-western immigrants was used. It covers individuals born in non-western countries (see [Supplementary appendix B](#)) to parents born abroad who are not Danish citizens. They come to Denmark either for education, work, refuge or social ties. Non-Western immigrants thus cover a heterogeneous group of refugees, family reunified and work/education immigrants. By recruiting among this group, we intended to avoid stigmatization and perhaps discover torture or trauma victims among other groups than refugees.

The questionnaire was available in eight languages (Danish, English, Arabic, Turkish, Urdu, Somali, Farsi and Dari). It was pilot tested on five patients and afterwards adjusted according to feedback on understandability. The questions were all closed-ended and mainly yes/no/do not know format. Written consent was obtained as part of the questionnaire. The questionnaire consisted of five parts: (i) background information on the patient, (ii) questions on whether the GP had inquired about torture/trauma, (iii) questions about exposure to other traumatic events, (iv) questions about exposure to torture and (v) questions on PTSD symptoms (see [Supplementary appendix A](#)).

In line with UNCAT,² torture was defined as violence or humiliation committed by a public authority, e.g. police or military. The questions about trauma were adopted from the Harvard Trauma Questionnaire and related to personal or family exposure to war, violence or persecution or imprisonment. PTSD questions were derived from the Primary Care PTSD Screen for DSM-5 (PC-PTSD-5) and will not be presented in this article.

The remaining questions concerned basic socio-demographic information, e.g. migrant status, defined as either refugee status, family reunification or other migrant status such as work migrant or international student.

In the study, we measured prevalence as lifetime-prevalence, which is the proportion of a population that, at some point in their life, has experienced a particular event.

Data collection

The clinics were invited by letter and emails followed up by phone calls. The project coordinator visited all the clinics that wished to participate and gave a verbal introduction to the study. The clinics were asked to distribute questionnaires to ≥ 18 -year-old refugees or first generation immigrants born in non-western countries and attending a prescheduled clinical appointment at their GP in the period of data collection.

Frontline staff in clinics would screen the daily schedule and invite patients to complete the survey based on their previous knowledge of the patient, the patients name and if possible, country of origin. Project staff was present at three of the clinics to follow how the study design was implemented in practice. Furthermore, they assisted in recruiting for the survey, as these clinics had many relevant patients, but did not have time to recruit themselves. Clinic staff would inform project staff of relevant patients, and project staff would approach the patient and inquire if they were eligible to participate.

Patients were eligible to participate regardless of a known or unknown history of torture and trauma and legal migrant status. Patients were excluded if questionnaires were not available in their language, if they suffered from, e.g. dementia, or if they were illiterate.

Patients who met the inclusion criteria were asked to complete the survey in the clinic before or after seeing the doctor or in their home if preferred, as this enabled more privacy to complete the questionnaire. The patients filled in the questionnaires individually. After the data collection period, all questionnaires were collected by the

project staff, and the questionnaires were entered into an encrypted database.

Data analysis

Countries of origin were grouped into regions, based on the World Banks divisions: (i) South and East Asia, (ii) Southeast Europe and Central Asia, (iii) Latin America and Caribbean, (iv) Middle East and North Africa (MENA) and (v) South Sahara Africa (see [Supplementary appendix C](#) for the grouping of survey countries). Age was grouped into 18–35, 36–45, 46–55 and 55+ years in the descriptive analyses, and as a binary variable corresponding to ages ± 55 years in the multivariate analyses. Years in Denmark were grouped into 0–9, 10–19, 20–29 and >29 years for the descriptive analyses and ≤ 4 or >4 years in the multivariate analyses. The answer 'don't know' was assumed to correspond to 'no' as to the item 'Torture survivor' and 'Being asked about trauma history'.

Statistical analyses

Binary descriptive analyses were conducted, analysing prevalence of torture and other traumatic events in the sample and correlations with background variables.

By means of multivariate logistic regression analyses, we explored:

(i) Predictors for being a torture survivor (dependent variable in analysis I) among all respondents (except 23 with missing age/gender information, $N=277$); (ii) predictors for having been asked about torture/trauma history by the GP (dependent variable) among torture survivors (except one with missing age/gender information, $N=82$). The following predictor variables were applied: Analysis I: gender, age (binary variable), educational level (binary variable), region of birth, years in Denmark (binary variable) and immigrant status (refugee, family reunified and 'other') and Analysis II: gender, years in Denmark and immigrant status (refugee, family reunified and 'other'). We opted to group immigrants with missing information on country of birth in region of Latin America and Caribbean countries. The logistic regression analyses were performed applying STATA, 11.2.

Ethics

The study was supported by the Danish Committee of Multi-Practice Studies in General Practice, and relevant data protection measures were taken. The questionnaire was prepared in collaboration with doctors and psychologist from Amnesty International Denmark's Medical Group and Danish Institute Against Torture, having vast experiences with torture victims (see author list). We asked all participating clinics to provide the possibility for a follow-up contact with the GP when the patients handed in the questionnaire. A hotline to a psycho-traumatologist was offered to all participating clinics and doctors were instructed how to refer relevant patients to rehabilitation clinics.

Results

Of the 416 invited GP clinics, 46 (11%) signed up for the project, and 300 immigrant patients completed the questionnaire.

Prevalence of torture and other traumatic experiences

[Table 1](#) presents demographic characteristics of the total study population ($N=300$) divided into three groups of immigrants: unexposed to torture or other traumatic events, exposed to torture and exposed to other traumatic events. Of the total study population, 141 (47%) reported no exposure to torture or other traumatic events (47%), 83 (28%) reported a history of personal exposure to torture and 76 (25%) reported exposure to other traumatic events such as war or persecution. The group of torture survivors had a

Table 1 Socio-demographic characteristics of the study population $N = 300$ divided into three groups: unexposed to torture or other traumatic events, exposed to torture and exposed to other traumatic events

Socio-demographic variables	No exposure to any traumatic events ($N = 141$)		Exposed to torture ($N = 83$)		Exposed to other traumatic events ($N = 76$)	
	<i>n</i>	(%)	<i>n</i>	(%)	<i>n</i>	(%)
Gender						
Male	66	(47)	58	(70)	26	(34)
Female	66	(44)	24	(29)	41	(54)
N/A	13	(9)	1	(1)	9	(12)
Age						
18–35	35	(25)	7	(8)	20	(26)
36–45	45	(32)	22	(27)	15	(20)
46–55	26	(19)	26	(31)	22	(29)
>55	28	(20)	26	(31)	16	(21)
N/A	7	(5)	2	(2)	3	(4)
Years as immigrant in DK						
0–9	47	(34)	15	(18)	18	(24)
10–19	35	(25)	21	(25)	20	(26)
20–29	22	(16)	34	(41)	23	(30)
>29	31	(21)	11	(13)	12	(16)
N/A	6	(4)	2	(2)	3	(4)
Region of birth						
Southeast Europe and Central Asia	29	(21)	12	(14)	11	(14)
South and East Asia	60	(43)	5	(6)	10	(13)
Middle East and North Africa	27	(19)	58	(70)	36	(47)
South Sahara Africa	14	(10)	7	(8)	10	(13)
Latin America or N/A	11	(7)	1	(1)	9	(12)
Immigrant status						
Refugee	4	(3)	52	(63)	39	(51)
Family reunified	66	(47)	16	(19)	24	(32)
Other	63	(45)	11	(13)	10	(13)
N/A	8	(6)	4	(5)	3	(4)
Current employment						
Employed	85	(60)	21	(25)	36	(47)
Unemployed	39	(28)	52	(63)	33	(43)
Pensioned	11	(8)	9	(11)	4	(5)
N/A	6	(4)	1	(1)	3	(4)

relative larger proportion of men (58/83, 70%) compared with the other groups (see [table 1](#)). The patients who had been exposed to torture and other traumatic events primarily had refugee status and came from the MENA region, whereas the group unexposed to torture or trauma primarily came from South and East Asia (see [table 1](#)). On a country level, most torture survivors came from Iraq (21/83, 25%), followed by Iran (16/83, 19%) and Bosnia/Herzegovina (7/83, 8%). As to current employment status, 39 of the 141 (28%) were unemployed in the group unexposed to torture or other traumatic events, 52 of the 83 (63%) in the group of torture survivors were unemployed and 33 of the 76 (43%) in the group exposed to other traumatic events were unemployed.

[Table 2](#) shows the results of the logistic regression analysis with odds ratio (OR, 95% confidence interval) for being a torture survivor among 277 immigrant patients in general practice. OR for being a torture survivor were significantly lower among women than men, OR: 0.35 (0.18–0.68). Relative to immigrants from Europe/Central Asia, OR for being a torture survivor among immigrants from the MENA and South/east Asia was 1.83 (0.81–4.15) and 0.25 (0.08–0.82), respectively. Relative to refugees OR for being a torture survivor among family reunified was 0.25 (0.12–0.53). While stratifying the analysis by gender (not shown) revealed the same pattern, the model explains little of the variance in the observations (pseudo $R^2 = 0.1979$).

How often GPs ask their immigrant patients about torture and trauma history

[Table 3](#) shows that of the total population 73 of the 300 (24%) had been asked by their GP about torture or trauma history. Forty of these (55%) were refugees. In the group exposed to other traumatic

events, 19 of 76 (25%) had been asked. Of the 83 torture survivors, 46 (55%) had been asked—33 (71%) within their 5 first years after Danish residency was granted, 4 (10%) within 5–9 years and 7 (15%) more than 9 years after residency was granted (N/A 2/46, 4%). Of the 83 torture survivors, 26 (31%) had never been asked by their GP (N/A 11/83, 13%). Of the 83 torture survivors, 19 (23%) had been asked about their torture or trauma history at the asylum centre.

[Table 4](#) shows the OR (95% CI) of being asked about torture by GPs among torture survivors without missing information ($N = 82$). Relative to men, OR among women was 1.28 (0.46–3.53). Relative to refugees OR for being asked among family reunified was 2.44 (0.64–9.28). Relative to immigrants with up to 4 years in Denmark, OR for being asked among those with a longer stay was 0.42 (0.09–2.01). While some point estimates showed marked differences (but insignificant, limited power), the models explained little of the variance.

Discussion

This study explored prevalence of torture and trauma history among a sample of non-western immigrants in primary care in Denmark and to which extent GPs ask their immigrant patients about torture and trauma history.

The data-gathering and recruitment process was challenging, as only 11% of the invited GPs signed up for the project. Most GPs considered the study important, but when inquired about their declination, the main reasons given were lack of time and resources, few immigrant patients and the sensitive nature of the topic. Most doctors did not have time themselves to distribute

the questionnaire and part of the secretary and nurses working in the clinics did not feel comfortable in asking the relevant patients to participate in the survey. Despite the difficulties in recruiting GPs to distribute the questionnaire, no less than 300 immigrant patients finalized the survey.

We found that 83 (28%) of these patients had been exposed to torture and 76 (25%) had been exposed to other traumatic events. Odds for being a torture victim was highest for populations from the Middle East, for males, as well as for patients with a refugee background, indicating that these groups need special attention when screening for torture in primary care.

A large percentage of the group of torture survivors in our study was currently unemployed. A number of studies show that conditions of insecurity in host countries, such as unemployment and near poverty are stressors that can aggravate existing mental health problems.^{14,15} Hence, early detection and handling of trauma caused by torture should go hand in hand with access to decent livelihoods, including socio-economic and legal support.

Table 2 Risk (OR) for being a torture survivor in the total study population^a

Predictor variable	n	Odds ratio	P-value	95% CI
Gender				
Male	145	1.00		
Female	125	0.35	0.00	0.18–0.68
Age (2018)				
18–54 years	203	1.00		
55+ years	67	1.20	0.60	0.61–2.36
Region of birth				
Southeast Europe and Central Asia	72	1.00		
South and East Asia	44	0.25	0.02	0.08–0.82
Middle East and North Africa	115	1.83	0.15	0.88–4.15
South Sahara Africa	28	0.80	0.71	0.25–2.58
Latin America and unknown	11	0.14	0.09	0.02–1.37
Immigrant status				
Refugee	89	1.00		
Family reunified	99	0.25	0.00	0.12–0.53
Other	82	0.21	0.00	0.09–0.46
Years as immigrant in DK				
0–4 years	44	1.00		
5+ years or unknown	226	1.09	0.87	0.40–2.91

Pseudo R^2 : 0.1979; log likelihood: –134.96.

a: $N=270$ after excluding individuals with missing gender or age information.

The second part of the study investigated the extent to which GPs ask their immigrant patients about torture and trauma history. We found that 46 (55%) of the patients with a history of torture had been asked about this by their GPs and 33 (71%) of these within the first 5 years after residency in DK had been granted. This finding indicates that the GPs to a large extent have managed to detect this group early. However, 26 (31%) of the torture victims had never been asked about their GP about torture or trauma history. Related studies have also shown that doctors often remain unaware of refugees' trauma histories and associated health consequences.^{11,16} This may be explained by the fact that GPs lack awareness of health consequences of having a migrant or refugee background or that they have too little time or knowledge to ask about trauma and torture.¹⁰ Torture survivors may also be hesitant to tell their story because of a lack of trust in doctors (who in some cases in their home country may have assisted in the torture) or because of fear of not being believed. This can be combined with shame and guilt typically induced by the perpetrators, fear that something bad will happen to family members if they speak, or because they do not connect current medical problems with past trauma history.^{13,17–20} In our study, the odds for being asked about torture or a trauma history by the GP were higher among women than among men although the odds for having in fact been tortured were higher in men. This may be explained by women's more frequent needs to talk to the GP, e.g. in relation to maternal and gynaecological examinations.

Table 4 Risk (OR) of having been asked about torture by a general practitioner among torture survivors^a

Predictor variables	n	Odds ratio	P-value	95% CI
Gender				
Male (ref)	58	1.00		
Female	24	1.28	0.64	0.46–3.53
Immigrant status				
Refugee (Ref)	52	1.00		
Family reunified	16	2.44	0.19	0.64–9.28
Other	14	1.40	0.61	0.38–5.16
Years in Denmark ^b				
0–4 years (ref)	33	1.00		
5+ years/unknown	13	0.42	0.28	0.09–2.01

Pseudo R^2 : 0.0316; log likelihood: –54.45.

a: $N=82$ after excluding individuals with missing gender or age information.

b: Years in Denmark before eventually being asked by GP.

Table 3 Immigrant patients asked by general practitioners about torture or trauma history

	Total population ($N=73$)		Exposed to torture ($N=46$)		Exposed to other traumatic events ($N=19$)	
	n	(%)	n	(%)	n	(%)
Time in DK ^a						
0–5 years	52	71	33	72	12	63
5–9 years	7	10	4	9	3	16
9+ years	11	15	7	15	3	16
N/A	3	4	2	4	1	1
Gender						
Male	45	62	31	67	9	47
Female	27	37	15	33	9	47
N/A	2	3	–	–	1	5
Migrant status						
Refugee	40	55	27	59	13	68
Family reunified	18	25	11	24	5	26
Other	11	15	5	11	1	5
N/A	4	5	3	7	–	–

a: Time in DK before being asked by general practitioner.

Our findings show that only one-fourth of the torture survivors had been asked about previous torture at the asylum centre. This may indicate insufficient screening practices upon arrival. Inquiring about a torture history at the asylum centres upon arrival to the host country is crucial, and information on the subject should be passed on to the GP if refugee status is granted.

Survivors of torture are a very vulnerable group. Besides untreated psychological trauma, they are likely to have medical conditions and extensive social stressors that further complicate assessment.¹⁰ To secure adequate care and referrals, the GPs must have a knowledge about physical and mental consequences of trauma and torture.²¹ Combined with knowledge of patients' migrant and refugee background, this is likely to optimize communication with the individual patient and increase early detection of torture and trauma among immigrant patients in primary care. To forward this agenda, more knowledge followed by teaching interventions is needed to understand the obstacles for GP's asking refugee and immigrant patients about torture and trauma; how and when to inquire and the way forward regarding referrals and further treatment.

Methodological considerations

Representativeness of sample: despite having invited broadly among GPs to participate in the study, the GPs who signed up for this project may have a more specific interest in the topic than the GP population at large. Thus, they may pay more attention to asking immigrant patients about their torture/trauma history. Therefore, the results regarding early detection might be higher than a broader sampling would show.

We asked the participating doctors to invite *all* patients from non-western countries attending clinical appointments in the project period, regardless of immigrant status and known/unknown trauma and torture history. However, some doctors might have been more aware about asking patients with a known or obvious trauma/torture history, which can affect the generalizability of the findings. Moreover, some of the traumatized patients may have declined to participate in the survey due to the sensitive nature of the subject. At the same time, there is a risk that some of the non-traumatized patients have declined, as they did not feel it relevant to participate. Due to the study set-up, illiterates, who would otherwise be a relevant group to include, were excluded from this sample.

Validity of responses: the responses are based on self-identified torture/trauma exposure. Despite defining torture in the questionnaire, some respondents might not have read it or misunderstood the definition, which can cause inaccuracies in the responses. Self-reports measure subjective distress and is bound by limitations such as under- or over-reporting of events due to embarrassment, shame, social desirability or misperception. In some cases, incentive structures may also lead patients to exaggerate. The fact that the questionnaire was designed by combining parts of validated screening tools, adds further bias.

It was a challenge to find short culturally valid screening tools to use in the linguistically diverse population, which characterizes the sample in this study. There is a need for the development of culturally sensitive approaches to identifying and addressing torture and trauma.²² The interpreters we used were professionals and very qualified, however, that we did not use the Vallerand's back-translation procedure²³ to translate the questionnaire, adds to the bias of the results.

Interpretation of results: we opted to dichotomize, e.g. age when adjusting for this variable in the regression analysis. This is a limitation as to the interpretation of the results, as dichotomizing most likely will lead to residual confounding compared with adjustment for the underlying continuous variable. However, it was not an option to apply several dummies of categorical level of age due to very few or no observations in the corresponding strata for the other adjustment variables. Using age as continuous variable (eventually as

quadratic term) would turn the regression analysis hard to interpret. With a larger sample size, we would certainly have preferred dummy variables.

Supplementary data

Supplementary data are available at *EURPUB* online.

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Conflicts of interest: None declared.

Key points

- Torture and trauma are widespread among immigrants presenting to GPs in Denmark.
- About one-half of the torture survivors in the study had been asked by their GP about torture history.
- Female torture survivors were more likely to be detected by the GPs.
- A more systematic approach to detection in general practice is advisable, and more knowledge on how and when to ask is suggested.
- General practice is a difficult set-up for conducting studies on torture and trauma, as GPs in general are busy, and such studies are sensitive and time consuming.

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